The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.



Safety Instructions

Notational



These safety instructions must be followed to ensure your safety and prevent property damage.

Make sure to read the instructions carefully and use the product in the correct manner.

Warning / Caution



Failure to follow directions noted by this symbol could result in bodily harm or damage to the equipment.

Note



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Ground to prevent an electric shock

Power



When not used for extended period of time, set your computer to DPM.

If using a screen saver, set it to active screen mode.

The images here are for reference only, and are not applicable in all cases (or countries).

Shortcut to Anti-Afterimage Instructions



- Do not use a damaged power cord or plug or a damaged or loose power outlet.
- Otherwise, this may result in electric shock or fire.



- Do not touch the power plug with wet hands when removing or plugging the plug into the outlet.
- Otherwise, this may result in electric shock.



- Make sure to connect the power cord to a grounded power out-
- Otherwise, it may result in electric shock or personal injury.



- Ensure that the power plug is plugged into the power outlet firmly and correctly.
- Otherwise, this may result in fire.



- Do not forcefully bend or pull the power plug and do not place any heavy material on it.
- Otherwise, this may result in fire.



- Do not connect multiple appliances to the same power outlet.
- Otherwise, this may cause fire due to overheating.



- Do not disconnect the power cord while using the product.
- Otherwise, this may result in damage to the product due to electric shock.



- To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.
- Otherwise, this may cause electric shock or fire.



- Use only the power cord provided by our company. Do not use the provided power cord of another product.
- Otherwise, this may result in fire or electric shock.



- Connect the power plug to a wall outlet that can be easily reached.
- When a problem occurs with the product, you must unplug the power plug to cut the power off completely. You cannot cut the power off completely using only the power button on the product.

Installation



Be sure to contact an authorized Service Center when installing your monitor in a location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances and where it operates for 24 hours such as at airports, train stations etc.

Failure to do so may cause serious damage to your monitor.



- Ensure that at least two persons lift and move the product.
- Otherwise, it may be dropped and cause personal injury, and/ or damage the product.



- When installing the product in a cabinet or rack, make sure that the front end of the bottom of the product does not project out.
- Otherwise, it may fall or cause personal injury.
- Use a cabinet or rack of a size appropriate to the product.





DO NOT PLACE CANDLES, MOSQUITO REPELLANT, CIGARETTES AND ANY HEATING APPLIANCES NEAR THE PRODUCT.

· Otherwise, this may result in fire.

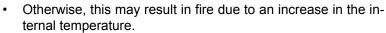


▶ Keep heating appliances as far away from the power cord or the product as possible.

Otherwise, this may result in electric shock or fire.



Do not install it in a badly ventilated location such as a bookcase or closet.





▶ When putting the product down, make sure to put it down softly.

Otherwise, this may result in damage to the screen display.



Do not place the front of the product on the floor.

Otherwise, this may result in damage to the screen display.

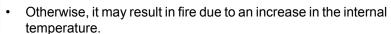


Ensure that an authorized installation company installs the wall mount

- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.

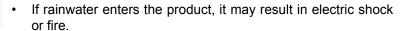


▶ Install your product in a well ventilated location. Ensure that there is a clearance of more than 4 inches (10 cm) from the wall.





▶ Bend the outdoor antenna cable downwards at the location where it goes in so that rainwater does not flow in.





Install the antenna far away from any high voltage cables.

• If the antenna touches or falls onto a high voltage cable, it may result in electric shock or fire.



▶ Ensure that the packaging vinyl is kept away from children.

 Otherwise, it may result in serious harm (suffocation) if children play with it.



■ If the height of your monitor is adjustable, do not place any object or part of your body on the stand when lowering it.

This may cause damage to the product or the person carrying it.

Clean



When cleaning the monitor case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft cloth.



- Do not spray cleaner directly onto the surface of the product.
- Otherwise, this may result in the discoloration and distortion of the structure and the screen surface may peel off.



- When cleaning the power plug pins or dusting the power outlet, clean it with a dry cloth.
- Otherwise, it may result in fire.



- When cleaning the product, make sure to disconnect the power cord.
- Otherwise, it may result in electric shock or fire.



- When cleaning the product, disconnect the power cord and clean it with a soft, dry cloth.
- (Do not use chemicals such as wax, benzene, alcohol, thinner, mosquito repellant, lubricant, or cleaner.) These may change the appearance of the product surface and peel off the indication labels on the product.



Since the product housing is easily scratched, make sure to use the specified cloth only.



- When cleaning the product, do not spray water directly onto the main body of the product.
- Ensure that water does not enter the product and that it is not wet.
- Otherwise, this may result in electric shock, fire or a malfunction.

Others



The product is a high voltage product. Do not disassemble, repair or modify the product yourself.



- Otherwise, this may result in electric shock or fire. If the product needs to be repaired, contact a Service Center.
- If there is a strange smell or a strange sound or smoke is coming from the product, disconnect the power plug immediately and contact a Service Center.
- Otherwise, this may result in electric shock or fire.





- Do not place this product in a location exposed to moisture, dust, smoke, water, or in a car.
- Otherwise, this may result in electric shock or fire.



- When you drop the product or the case is broken, turn the power off and disconnect the power cord. Contact a Service Center.
- Otherwise, this may result in electric shock or fire.



- If thunder or lightning is occurring, do not touch the power cord or antenna cable.
- Otherwise, this may result in electric shock or fire.



- Do not try to move the monitor by pulling only the wire or the signal cable.
- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



- Do not lift or move the product back and forwards or right and left while only holding the power cord or signal cables.
- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



- Make sure that the ventilating opening is not blocked by a table or curtain.
- Otherwise, it may result in fire due to an increase in the internal temperature.



- Do not place any containers containing water, vases, flowerpots, medicines as well as any metal on the product.
- If water or a foreign material enters the product, disconnect the power cord and contact a Service Center.
- This may result in a product malfunction, electric shock, or fire.



- Do not use or keep combustible spray or flammable material near the product.
- Otherwise, this may result in an explosion or fire.



- Do not insert any metal, such as chopsticks, coins, pins and steel, or flammable objects, such as matches or paper, inside the product (through the ventilating openings, input and output terminals, etc).
- If water or foreign material enters the product, disconnect the power cord and contact a Service Center.
- Otherwise, this may result in electric shock or fire.



- When using a fixed screen for a long time, an afterimage or stain may occur.
- If you are not using your product for a long period of time, put it into sleep mode or use a moving screen saver.





- Set a resolution and frequency appropriate to the product.
- Otherwise, your eyesight may be damaged.



When using headphones or earphones, do not turn the volume too high.

Having the sound too loud may damage your hearing.



To avoid eyestrain, do not sit too close to the product.



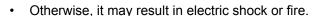
- Take a rest for at least five (5) minutes after using the monitor for one (1) hour.
- This reduces eye fatigue.



- Do not install it in an unstable location such as an unstable rack or uneven surface or a location exposed to vibrations.
- Otherwise, it may fall and cause personal injury and/or damage the product.
- If you use the product in a location exposed to vibrations, it may damage the product and result in fire.



When moving the product, turn the power off and disconnect the power plug, antenna cable, and all the cables connected to the product.





Ensure that children do not hang onto the product or climb up onto the product.

The product may fall and cause personal injury or death.



- If you do not use the product for a long period of time, disconnect the power cord from the power outlet.
- Otherwise, this may result in overheating or fire due to dust, and may result in fire due to electric shock or leakage.



- Do not place any heavy items or toys or confectionery, such as cookies etc. that may attract the attention of children and to the product.
- Your children may hang onto the product causing it to fall and this may result in personal injury or death.

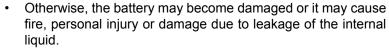


- Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.
- If children have had the battery in their mouths, consult your doctor immediately.



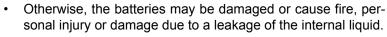








Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.





■ The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

The customer can return used or rechargeable batteries to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.



Do not place the product in a location exposed to direct sunlight or near any heat such as a fire or heater.

This may reduce the lifetime of the product, and may result in



Do not drop any objects onto the product or cause any impact to the product.

Otherwise, this may result in electric shock or fire.

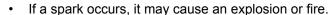


Do not use a humidifier near the product.

Otherwise, this may result in electric shock or fire.



When there is a gas leak, do not touch the product or the power plug; ventilate immediately.





If the product has been turned on for a long time, the display panel becomes hot. Do not touch it.



Keep the small accessories in a location out of the reach of children.



- Be careful when adjusting the angle of the product or the height of the stand.
- This may result in personal injury as your hand or fingers may become caught.
- Also, if you tilt the product too far, it may fall and cause personal injury.





- Do not install the product in a location low enough for children to reach.
- Otherwise, it may fall and result in personal injury.
- Since the front part of the product is heavy, install the product on a level and stable surface.



- Do not put any heavy objects on the product.
- This may result in personal injury and/or damage to the product.

Introduction

Package Contents

Checking the Contents of the Package



- After unpacking the package, make sure to check the contents of the package.
- Store the packaging box in case you need to move the Product later.
- If any items are missing, contact your dealer.
- Contact a local dealer to purchase optional items.

Unpacking



LCD Display

Manuals



Quick Setup Guide



Warranty Card



User Manual

(Not available in all locations)



MagicInfo Software DVD

Cables



Power Cord



D-Sub Cable

Others



Remote Control

(BP59-00138B)



Batteries (AAA X 2)

(Not available in all locations)

Sold separately



Semi Stand KIT





RGB to BNC Cable



LAN Cable



RGB to COMPONENT Cable



USB Cable



TV tuner box



Wall Mount KIT



RS232C Cable



Accessories that can be purchased with the product vary by country.

Your LCD Display

The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

Front



MENU button [MENU]

Opens the on-screen menu and exits from the menu. Also use to exit the OSD menu or return to the previous menu.

Navigate buttons (Up-Down buttons)

Moves from one menu item to another vertically or adjusts selected menu values.

Adjust buttons (Left-Right buttons) / Volume buttons

Moves from one menu item to another horizontally or adjusts selected menu values. When OSD is not on the screen, press the button to adjust volume.

O ENTER button [ENTER]

Activates a highlighted menu item.

SOURCE button [SOURCE]

Switches from PC mode to Video mode. Selects the input source that an external device is connected to.

[PC] [DVI] [AV] [Component] [HDMI1] [HDMI2] [DisplayPort] [MagicInfo] [TV]



 The [RGB/COMPONENT IN] port is compatible with RGB (PC) and Component signals.

However, the picture may display abnormally if the connected external input signal is different from the selected video signal.

• A TV tuner box (sold separately) must be connected to use the TV.



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICINFO)] on the product.

O.MENU button

Opens the on-screen D.MENU.



The D.MENU button is activated when a TV tuner is connected and otherwise, the PIP button is enabled.

PIP button

Push the PIP button to turn the PIP screen On / Off.

Power button [^⁰]

Use this button for turning the LCD Display on and off.

8 Brightness Sensor

Automatically detects the surrounding brightness.

Power indicator

Shows PowerSaver mode by blinking green



See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your LCD Display OFF when it is not needed or when leaving it unattended for long periods.

Remote Control Sensor

Aim the remote control towards this spot on the LCD Display.

Rear



See the "Connections" section for details about cable connections. The LCD Display's configuration at the back may vary slightly depending on the model.



A



O POWER S/W ON []/ OFF

Switches the LCD Display On/Off.

POWER

The power cord plugs into the LCD Display and the wall outlet.

B



3 RGB/COMPONENT IN (PC/COMPONENT Connection Terminal (Input))

- Connect the [RGB/COMPONENT IN] port on the monitor to the RGB port on the PC using the D-SUB cable.
- Connect the [RGB/COMPONENT IN] port on the monitor to the COMPONENT port on the external device using the RGB to COMPONENT cable.
- Connect the [RGB/COMPONENT IN] port on the monitor to the BNC port on the PC using the RGB to BNC cable.
- OVI IN (PC Video Connection Terminal)

Connect the [DVI IN] port on the monitor to the DVI port on the PC using the DVI cable.

5 RGB/DVI/DP/HDMI AUDIO IN (PC/DVI/ DP/HDMI Audio Connection Terminal (Input))

Connect the [RGB/DVI/DP/HDMI AUDIO IN] terminal of the monitor and the speaker output terminal of your computer's sound card using a stereo cable (sold separately).



Receives a signal from the Display port.

Connect a DP cable to [DP IN] on the product and DP IN on another display.





O AV/COMPONENT AUDIO IN [R-AUDIO-L]

Connect the [AV/COMPONENT AUDIO IN [R-AUDIO-L]] port on the monitor to the audio output port on the PC or on the external device using an audio cable.



Connect the [AV IN] terminal of your monitor to the video output terminal of the external device using a VIDEO cable.

AUDIO OUT

Connect a headphone or an External speaker.

0 DC OUT

Make sure to use connecting [DC OUT] terminal to the authorized TV-Tuner Box [SBB DTC/ZA].

Otherwise, this may result in damage to the product.

- 10 HDMI IN 1
- Connect the [HDMI IN 1] terminal at the back of your LCD Display to the HDMI terminal of your digital output device using a HDMI cable.
- Up to HDMI 1.3 can be supported.



- A normal external device (DVD player or camcorder, etc.) or a TV tuner box can be connected to the [HDMI IN 1] terminal.
- To use a TV tuner box, make sure to connect it to the [HDMI IN 1] terminal.
- U HDMI IN 2 (MAGICINFO)
- Connect the [HDMI IN 2 (MAGICINFO)] terminal at the back of your LCD Display

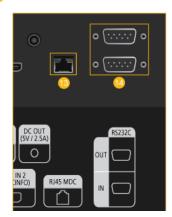
to the HDMI terminal of your digital output device using a HDMI cable.

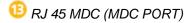
• Up to HDMI 1.3 can be supported.



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICINFO)] on the product.

O





MDC(Multiple Display Control) Program Port

Connect the LAN cable to [RJ45 MDC] on the product and LAN on the PC. To use an MDC, the MDC Program must be installed on the PC.



Go to Multi Control and select RJ45 MDC as the MDC Connection.

0 RS232C OUT/IN (RS232C Serial PORT)

MDC(Multiple Display Control) Program Port

Connect a serial cable (cross type) to [RS232C] on the product and RS232C on the PC. To use an MDC, the MDC Program must be installed on the PC.



Go to **Multi Control** and select **RS232C MDC** as the **MDC Connection**.

ø



1 RGB OUT

MagicInfo video output port

10 MAGICINFO OUT

This is the output terminal for the video, audio, and control signals of **MagicInfo**.

It can be used by connecting it to the [HDMI IN 2 (MAGICINFO)] terminal using a DP to HDMI cable.



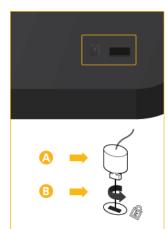
Connects to a LAN cable to allow Internet or network access in MagicInfo mode.



USB (USB Connection Terminal)

Keyboard / Mouse, Mass Storage Device Compatible.





Kensington Lock slot

A Kensington Lock is an anti-theft device that enables users to lock the product so that they can safely use it in public locations. Since the shape and usage of the locking device may differ depending on the model and the manufacturer, for more information, refer to the User Manual supplied with the locking device for more information.

To lock the product, follow these steps:

- Wrap the Kensington lock cable around a large, stationary object such as a desk or chair.
- 2. Slide the end of the cable with the lock attached through the looped end of the Kensington lock cable.
- 3. Insert the Kensington Lock into the security slot (6) on the back of the dis-
- Lock the lock (42).



- You must purchase the Kensington Lock separately.
- These are general instructions. For exact instructions, see the User Manual supplied with the locking device.
- You can purchase the locking device from an electronics store, an online shop, or our service Center.

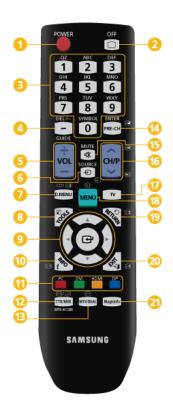


The power switches of both of the monitor and the network box must be turned on for the network box to operate normally.

Remote Control



The performance of the remote control may be affected by a TV or other electronic device operating near the LCD Display , causing a malfunction due to interference with the frequency.



- 0 U POWER
- OFF
- Number Buttons
- OEL -/-- / GUIDE button
- 6 + VOL -
- ⊕ SOURCE
- 🕖 💷 D.MENU
- ¹ TOOLS
- Up-Down Left-Right buttons
- 0 i INFO
- The Color button and the PC/DVI/HDMI/DP selection button.
- ☑ ■/☑ TTX/MIX
- MTS/DUAL
- O ENTER/PRE-CH
- 🤨 <table-of-contents> мите
- TV
- MENU
- 10 S RETURN
- MagicInfo

O U POWER

Turns the product On/Off.

OFF

Turns the product Off.

Number Buttons

Used to enter the password during the OSD adjustment or to use MagicInfo.

Press to change the channel.

OEL -/-- / GUIDE button

The "-" button is used to select Digital channels.

Electronic Program Guide (EPG) display.



This button can only be used in TV mode while a TV tuner box (sold separately) is connected.

€ + VOL -

Adjusts the audio volume.

6 ★ SOURCE

Selects a connected external input source or **MagicInfo** mode.

Press the button to change the input signal SOURCE.

Changing the SOURCE is only allowed for external devices that are connected to the LCD Display at the time.

O.MENU

DTV menu display



This button can only be used in TV mode while a TV tuner box (sold separately) is connected.

¹ TOOLS

Use to quickly select frequently used functions.



This function does not work for this LCD Display.

Up-Down Left-Right buttons Moves from one menu item to another horizontally, vertically or adjusts selected menu values.

0 i INFO

Current picture information is displayed on the upper left corner of the screen.

The Color button and the PC/DVI/HDMI/DP selection button.

In TV mode, these buttons can be used to configure a list of channels.

You can select the **PC**, **DVI**, **HDMI** or **DisplayPort** external input directly in a mode other than TV mode.

☑ ■/✓ TTX/MIX

TV channels provide written information services via teletext.

- Teletext Buttons





This function does not work for this LCD Display.

1 MTS/DUAL

MTS-

You can select MTS (Multichannel Television Stereo) mode.

	Audio Type	MTS/S_Mode	Default
FM Stereo	Mono	Mono	Manual
	Stereo	Mono Stereo	Change

SAP Mono SAP Mono

DUAL-

STEREO/MONO, DUAL I / DUAL II and MONO/NICAM MONO/NICAM STEREO can be operated depending on the broadcasting type by using the DUAL button on the remote control while watching TV.



Enabled when a TV tuner box is connected.

🔱 🗐 ENTER/PRE-CH

This button is used to return to the immediately previous channel.



Enabled when a TV tuner box is connected.

Pauses (mutes) the audio output temporarily. This is displayed on the lower left corner of the screen. The audio comes back on if MUTE or - VOL + is pressed in the Mute

mode.

In **TV** mode, selects TV channels.

Note

Enabled when a TV tuner box is connected.

Allows you to watch an analogue or digital TV.

Note

Enabled when a TV tuner box is connected.

Opens the on-screen menu and exits from the menu or closes the adjustment menu.

Returns to the previous menu.

Exits from the menu screen.

MagicInfo Quick Launch Button.



To use MagicInfo with an TSn-3 model, install inside the product a network box specified by Samsung and connect the MagicInfo output on the network box to [HDMI IN 2 (MAGICINFO)] on the product.



1 CH/P ✓ CH/P

🕡 TV

📵 MENU

O RETURN

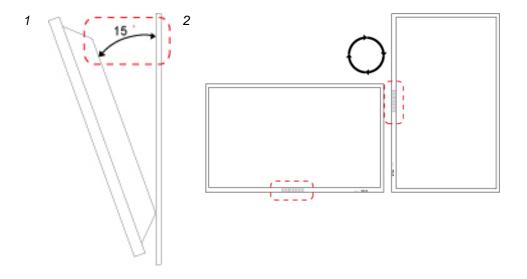
MagicInfo

User Installation Guide



- Be sure to call an installation expert of Samsung Electronics to install the product.
- The warranty becomes invalid if the product is installed by someone other than a professional authorized by Samsung Electronics.
- A Samsung Electronics service center can provide details.

Tilt Angle and Rotation

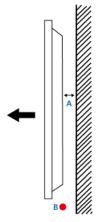


- 1. The product can be tilted up to 15 degrees from a vertical wall.
- 2. To use the product in portrait mode, rotate it clockwise so that the LED indicator is at the bottom.

Ventilation requirement

1. Vertical wall mount condition

<Side view>



A: min. 40 mm

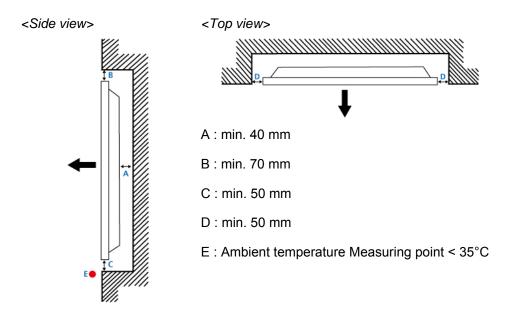
B: Ambient temperature Measuring point <35°C

 When installing the product onto a vertical wall, be sure there is a 40 mm space or more behind the product for ventilation, as shown above, and maintain the ambient temperature at 35°C or lower.



A Samsung Electronics service center can provide details.

2. Embedded Mount guide

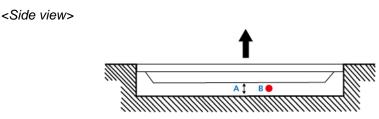


• When embedding the product in a wall, be sure there is some space behind the product for ventilation, as shown above, and maintain the ambient temperature at 35°C or lower.



A Samsung Electronics service center can provide details.

3. Floor mount guide



A: min. 50 mm

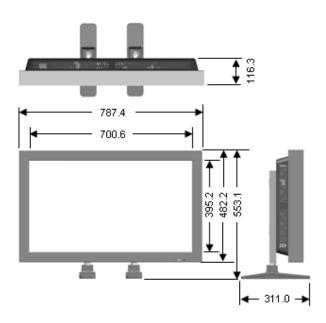
B: Ambient temperature Measuring point < 20°C

 When embedding the product in the floor, be sure there is a 50 mm space or more behind the product for ventilation, as shown above, and maintain the ambient temperature at 20° C or lower.



A Samsung Electronics service center can provide details.

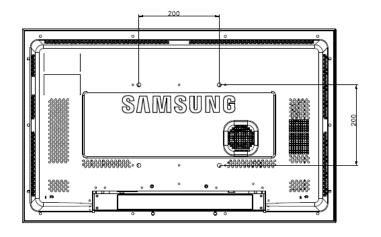
Mechanical Layout



Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information: Please contact your nearest SAMSUNG Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Display.
- SAMSUNG is not responsible for any product damage or any injury caused by installation at customer's discretion.

Dimensions

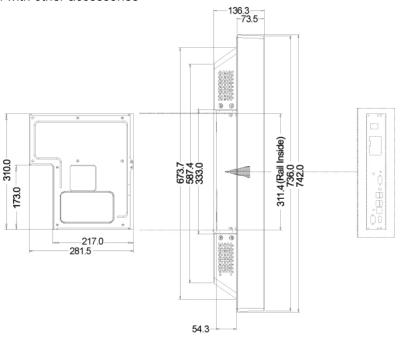




For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

Accessories (sold separately)

· Dimension with other accessories

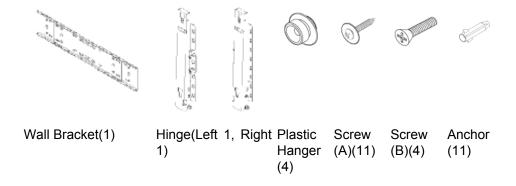


Wall Bracket Installation

- · Contact a technician for installing the wall bracket.
- SAMSUNG Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

Components

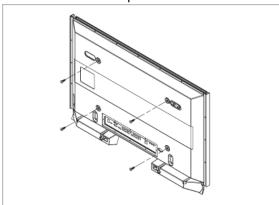
Only use the components and accessories shipped with the product.



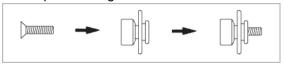
To mount the product on the wall bracket

The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)

1. Remove the 4 screws on the back of the product.

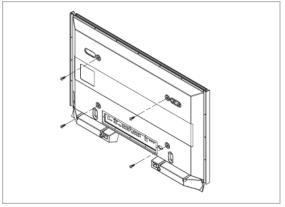


2. Insert the screw B into the plastic hanger.

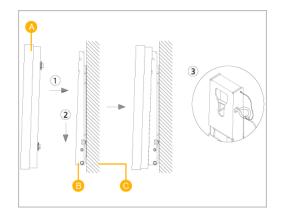




- Mount the product on the wall bracket and make sure it is properly fixed to the left and right plastic hangers.
- Be careful when installing the product on the bracket as fingers can be caught in the holes.
- Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.
- 3. Tighten the 4 screws in step 2 (plastic hanger + screw B)to the rear holes of the product.



4. Remove safety pin (3) and insert the 4 product holders into the corresponding bracket holes (1). Then place the product(2) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (3) to securely hold the product to the bracket.

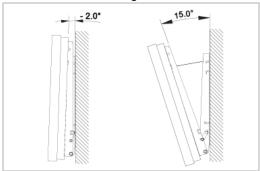


A - LCD Display
B - Wall Bracket

C - Wall

Wall Bracket Angle Adjustment

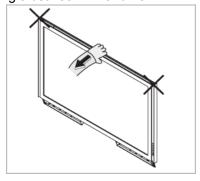
Adjust the bracket angle to -2° before installing it on the wall.



- 1. Fix the product to the wall bracket.
- 2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle.



You can adjust the bracket angle between -2° and 15°.



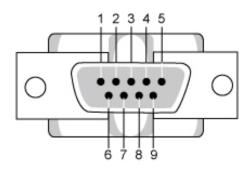
Make sure to use the top center, and not the left or the right side of the product to adjust the angle.

Remote Control (RS232C)

Cable connections

interface	RS232C(9 pin)
pin	TxD(No.2) RxD(No.3) GND(No.5)
Bits rate	9600 bps
Data Bits	8 bit
Parity	None
Stop Bits	1 bit
Flow control	None
Maximum length	15 m (only shielded type)

• Pin assignment

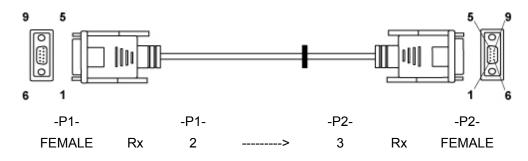


Pin	Signal
1	Data Carrier Detect
2	Received Data
3	Transmitted Data
4	Data Terminal Ready
5	Signal Ground
6	Data Set Ready
7	Request to Send
8	Clear to Send
9	Ring Indicator

RS232C cable

Connector: 9-pin D-Sub

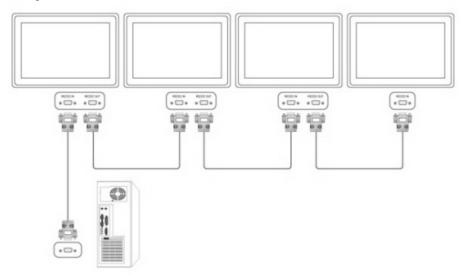
Cable: Cross (reversed) cable



Tx 3 <----- 2 Tx

Gnd 5 ----- 5 Gnd

Connecting method



Control codes

Get control

Header	command	ID	DATA Length	CheckSum
0xAA	command type	טו	0	Checksum

· Set control

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	command type	טו	1	Value	CheckSuili

· commanding words

No.	command type	command	Value range
1	Power control	0x11	0~1
2	Volume control	0x12	0~100
3	Input source control	0x14	-
4	Screen Mode control	0x18	-
5	Screen Size control	0x19	0~255
6	PIP on/off control	0x3C	0~1
7	Auto adjustment control	0x3D	0
8	Video wall Mode control	0x5C	0~1
9 Safety Lock		0x5D	0~1

- ID should show hexadecimal value of assigned ID, but ID 0 should be 0xFF.

- Every communication will be made in hexadecimals and Checksum is the sum of all remainings. If it exceeds two digits,for example, it is 11+FF+01+01=112, discard the number in the first digit like below.

example)PowerOn&ID=0

Header	command	ID	DATA Length	DATA 1	CheckSum
0xAA	0x11		1	Power	

Header	command	ID	DATA Length	DATA 1	12
0xAA	0x11		1	1	

If you want to control every mechanism connected with Serial Cable regardless of its ID, set ID part to "0xFE" and send commands. At the time, each product will follow commands but it will not respond with ACK.

Power Control

Function

Personal Computer turns TV / Monitor power ON/OFF.

· Get Power ON/OFF Status

Header	command	ID	DATA Length	CheckSum
0xAA	0x11	טו	0	CheckSum

Set Power ON/OFF

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	0x11		1	Power	

Power: Power code to be set on TV / Monitor

1: Power ON

0: Power OFF

Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'A'	0x11	Power	Sulli

Power: Same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
--------	--------------	----	----------------	---------	-------	------	--------------

0xAA 0xFF	3	'N'	0x11	ERR	
-----------	---	-----	------	-----	--

ERR: Error code that shows what occurred error is

Volume Control

• Function

Personal Computer changes volume of TV / Monitor.

· Get Volume Status

Header	command	ID	DATA Length	CheckSum
0xAA	0x12	ID ID	0	CheckSum

· Set Volume

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	0x12		1	Volume	

Volume : Volume value code to be set on TV / Monitor (0 ~ 100)

Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'A'	0x12	Volume	Suili

Volume: Same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x12	ERR	Julii

ERR: Error code that shows what occurred error is

• Input Source Control

• Function

Personal Computer changes input source of TV / Monitor.

· Get Input Source Status

Header	command	ID	DATA Length	CheckSum
0xAA	0x14	ID	0	CheckSum

Set Input Source

Header	command	ID	DATA Length	DATA	CheckSum	
0xAA	0x14		1	Input Source		

Input Source : Input Source code to be set on TV / Monitor

0x14	PC
0x1E	BNC
0x18	DVI
0x0C	AV
0x04	S-Video
0x08	Component
0x20	MagicInfo
0x1F	DVI_VIDEO
0x30	RF(TV)
0x40	DTV
0x21	HDMI1
0x22	HDMI1_PC
0x23	HDMI2
0x24	HDMI2_PC
0x25	DisplayPort



⚠ Caution

DVI_VIDEO, HDMI1_PC, HDMI2_PC Get Only

In the case of MagicInfo, only possible with models include MagicInfo

In the case of TV, only possible with models include TV.

Ack

Header	com- mand	· ID	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID ID	3	'A'	0x14	Input Source	Sum

Input Source : Same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x14	ERR	Suili

ERR: Error code that shows what occurred error is

Screen Mode Control

Function

Personal Computer changes "Screen Mode" of TV/Monitor.

Cannot be controlled when Video Wall is on.



Only works with models include TV.

Get Screen Mode Status

Header	command	ID	DATA Length	CheckSum
0xAA	0x18	טו	0	CheckSum

Set Picture Size

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	0x18	טו	1	Screen Mode	Checkoum

Screen Mode: Screen Mode code to be set on TV / Monitor

0x01	16 : 9
0x04	Zoom
0x31	Wide Zoom
0x0B	4:3

Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID	3	'A'	0x18	Screen Mode	Sum

Screen Mode: Same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x18	ERR	Sulli

ERR: Error code that shows what occurred error is

Screen Size Control

Function

Personal Computer recognizes the screen size of TV / Monitor.

· Get Screen Size Status

Header	command	ID -	DATA Length	CheckSum
0xAA	0x19	ID ID	0	CheckSum

Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	טו	3	'A'	0x19	Screen Size	Sum

Screen Size : Screen Size of TV / Monitor (Range : 0 ~ 255, Unit : Inch)

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x19	ERR	Suili

ERR: Error code that shows what occurred error is

• PIP ON / OFF Control

• Function

The PC turns the PIP function of a TV or Monitor ON / OFF.

This does not operate in MagicInfo mode.

· Get the PIP ON / OFF Status

Header	command	ID -	DATA Length	CheckSum
0xAA	0x3C	ID	0	CheckSulli

· Set the PIP ON / OFF

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	0x3C		1	PIP	

PIP: The PIP ON / OFF code to set for the TV or Monitor

1: PIP ON

0: PIP OFF

Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'A'	0x3C	PIP	Sum

PIP: Same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF		3	'N'	0x3C	ERR	Sum

ERR: Error code that shows what occurred error is

- · Auto Adjustment Control (PC, BNC Only)
 - Function

Personal Computer controls PC system screen automatically.

· Get Auto Adjustment Status

None

Set Auto Adjustment

Header	command	ID	DATA Length	DATA	ChookSum
0xAA	0x3D	טו	1	Auto Adjust- ment	CheckSum

Auto Adjustment: 0x00 (Always)

• Ack

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID	3	'A'	0x3D	Auto Adjustment	Sum

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x3D	ERR	Suili

ERR: Error code that shows what occurred error is

· Video Wall Mode Control

Function

Personal Computer converts Video Wall Mode of TV / Monitor when Video Wall is ON.

Only works with TV / Monitor where Video Wall is on.

Does not operate in MagicInfo

Get Video Wall Mode

Header	command	ID	DATA Length	CheckSum
0xAA	0x5C	טו	0	Checksum

· Set Video Wall Mode

Header	command	ID	DATA Length	DATA	ChookSum
0xAA	0x5C	טו	1	Video Wall Mode	CheckSum

Video Wall Mode: Video Wall Mode code to be set on TV / Monitor

1: Full

0 : Natural

• Ack

Header	com- mand		DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID	3	'A'	0x5C	Video Wall Mode	Sum

Video Wall Mode : same as above

Nak

Header	com- mand	ID	DATA Length	Ack/Nak	r-CMD	Val1	Check Sum
0xAA	0xFF		3	'N'	0x5C	ERR	Suili

ERR: Error code that shows what occurred error is

Safety Lock

• Function

Personal Computer turns Safety Lock function of TV / Monitor ON / OFF.

Can operate regardless of whether power is ON / OFF.

Get Safety Lock Status

Header	command	Ē	DATA Length	CheckSum
0xAA	0x5D	טו	0	CheckSum

• Set Safety Lock Enable / Disable

Header	command	ID	DATA Length	DATA	CheckSum
0xAA	0x5D		1	Safety Lock	

Safety Lock: Lock code to be set on TV / Monitor

1 : ON

0: OFF

Ack

Header	com- mand	15	DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID	3	'A'	0x5D	Safety Lock	Sum

Safety Lock : Same as above

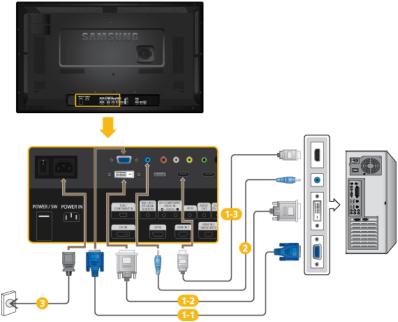
Nak

Header	com- mand		DATA Length	Ack/Nak	r-CMD	Val1	Check
0xAA	0xFF	ID	3	'N'	0x5D	Safety Lock	Sum

ERR: Error code that shows what occurred error is

Connections

Connecting a Computer



- 1 There are several ways to connect the computer to the monitor. Choose one from the following options.
 - Using the D-sub (Analog) connector on the video card.
 - Connect the D-sub to the 15-pin, [RGB/COMPONENT IN] port on the back of your LCD Display and the 15 pin D-sub Port on the computer.

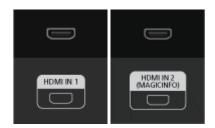


- Using the DVI (Digital) connector on the video card.
- Connect the DVI Cable to the [DVI IN] port on the back of your LCD Display and the DVI port on the computer.



153 Using the D-sub (Digital) connector on the video card.

• Connect the [HDMI IN 1] / [HDMI IN 2] port on the LCD Display to the HDMI port on the PC using the HDMI cable.





Select **HDMI2** or **HDMI1** as an input source when connected to the PC via an HDMI cable.

To obtain normal picture and audio from the PC, **HDMI2** or **HDMI1** must be selected before **PC** is selected in **Edit Name**.

To enable audio when **DVI Device** is selected, be sure to establish the connection using step (2).

- Connect the Audio cable for your LCD Display to the AUDIO port on the back of the LCD Display.
- Connect the power cord for your LCD Display to the POWER port on the back of the LCD Display. Turn on the power switch.



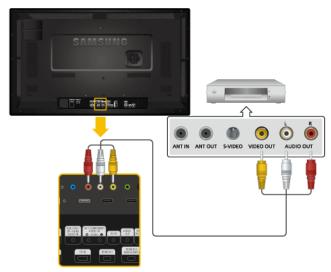
Contact a local SAMSUNG Electronics Service Center to buy optional items.

Connecting to Other devices



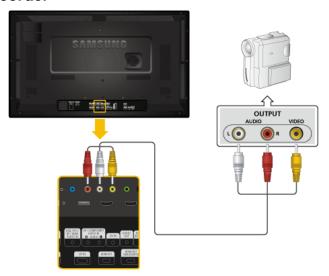
- AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.
- The LCD Display 's configuration at the back may vary slightly depending on the LCD Display model.

Connecting AV Devices



- Connect an audio cable to [AV/COMPONENT AUDIO IN [R-AUDIO-L]] on the product and the audio port on an external device such as a VCR or DVD player.
- 2. Connect a video cable to [AV IN] on the product and the video output port on the external device.
- 3. Then, start the DVD, VCR or Camcorders with a DVD disc or tape inserted.
- 4. Press SOURCE on the product or remote control and select "AV".

Connecting to a Camcorder



 Locate the AV output jacks on the camcorder. They are usually found on the side or back of the camcorder. Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the [AV IN] on the LCD Display.

- 2. Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the [AV /COMPONENT AUDIO IN [R-AUDIO-L]] on the LCD Display .
- 3. Press SOURCE on the product or remote control and select "AV".
- 4. Then, start the Camcorders with a tape inserted.



The audio-video cables shown here are usually included with a Camcorder.

(If not, check your local electronics store.)

If your camcorder is stereo, you need to connect a set of two cables.

Connecting Using a HDMI Cable

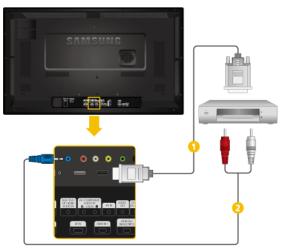


- 1. Connect an HDMI cable to [HDMI IN 2 (MAGICINFO)] or [HDMI IN 1] on the product and the HDMI output port on a digital device.
- 2. Press SOURCE on the product or remote control and select "HDMI1 / HDMI2"



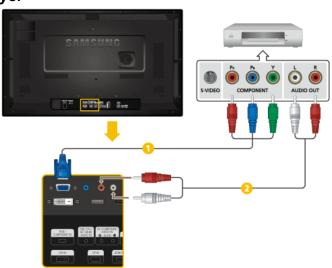
In **HDMI** mode, only PCM format audio is supported.

Connecting Using a DVI to HDMI Cable



- Onnect a DVI-HDMI cable to [HDMI IN 2 (MAGICINFO)] or [HDMI IN 1] and the DVI output port on the digital device.
- Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the [RGB/DVI/DP/HDMI AUDIO IN] terminal of the LCD Display.
- 3. Press SOURCE on the product or remote control and select "HDMI1 / HDMI2"

Connecting a DVD Player

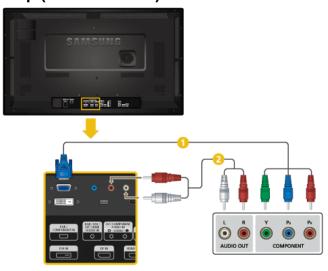


- Onnect a RGB to Component cable between the [RGB/COMPONENT IN] port on the LCD Display and the P_R, Y, P_B jacks on the DVD player.
- Connect a set of audio cables between the [AV/COMPONENT AUDIO IN [R-AUDIO-L]] on the LCD Display and the AUDIO OUT jacks on the DVD player.



- Press SOURCE on the product or remote control and select "Component".
- Then, start the DVD Player with a DVD disc inserted.
- A RGB to component cable is optional.
- For an explanation of Component video, consult your DVD manual.

Connecting a DTV Set Top (Cable/Satellite) Box

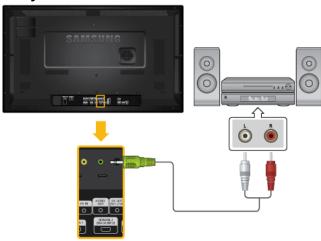


- Onnect a RGB to Component cable between the [RGB/COMPONENT IN] port on the LCD Display and the P_R, Y, P_B jacks on the Set Top Box.
- Connect a set of audio cables between the [AV/COMPONENT AUDIO IN [R-AUDIO-L]] on the LCD Display and the AUDIO OUT jacks on the Set Top Box.



- Press SOURCE on the product or remote control and select "Component".
- For an explanation of Component video, see your Set Top Box owner's manual.

Connecting to an Audio System



 Connect a set of audio cables between the AUX L, R jacks on the AUDIO SYSTEM and [AUDIO OUT] on LCD Display.

Connecting to MAGICINFO OUT



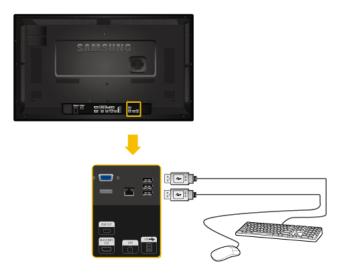
Connect the [MAGICINFO OUT] terminal and the [HDMI IN 2 (MAGICINFO)] terminal on the product using the DP to HDMI cable.

Connecting a LAN Cable



Connect the LAN cable between the [LAN] port on the product and the [LAN] port on your ${\sf PC}.$

Connecting a USB devices



You can connect USB devices such as a mouse or keyboard.

Using the Software

Monitor Driver



When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions appropriate for the operating system you have.

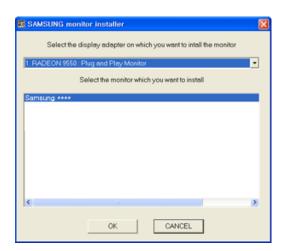
Prepare a blank disk and download the driver Program file at the Internet web site shown here.

Internet web site:

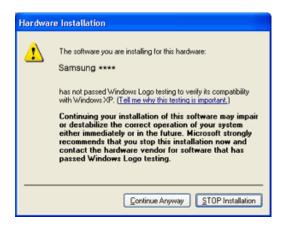
http://www.samsung.com/

Installing the Monitor Driver (Automatic)

- 1. Insert CD into the CD-ROM drive.
- 2. Click "Windows".
- 3. Choose your monitor model in the model list, then click the "OK" button.



4. If you can see following message window, then click the "Continue Anyway" button. Then click "OK" button (Microsoft® Windows® XP/2000 Operating System).





This monitor driver is certified by Microsoft, and installing it will not damage your system.

The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

Installing the Monitor Driver (Manual)

 $\mathit{Microsoft}^{\mathbb{B}}$ $\mathit{Windows Vista}^{\mathit{TM}},$ $\mathit{Operating System}$

- 1. Insert your Manual CD into your CD-ROM drive.
- Click (Start) and "Control Panel". Then, double-click on "Appearance and Personalization".





3. Click "Personalization" and then "Display Settings".



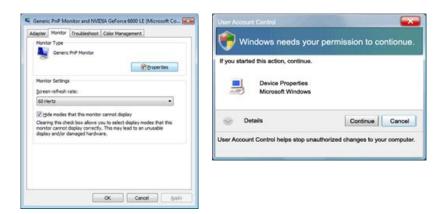


4. Click "Advanced Settings...".



5. Click "Properties" in the "Monitor" tab. If the "Properties" button is deactivated, it means the configuration for your monitor is completed. The monitor can be used as is.

If the message "Windows needs..." is displayed, as shown in the figure below, click "Continue".

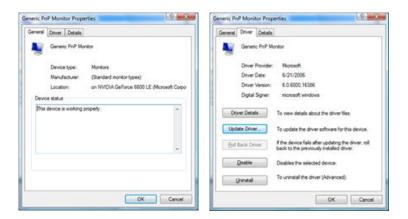




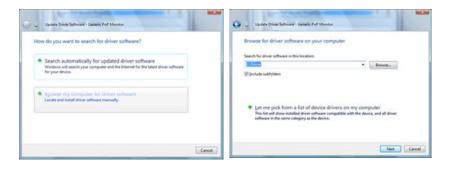
This monitor driver is under certifying MS logo, and this installation will not damage your system.

The certified driver will be posted on Samsung Monitor homepage.

6. Click "Update Driver..." in the "Driver" tab.

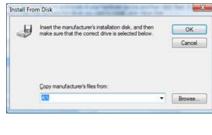


7. Check the "Browse my computer for driver software" checkbox and click "Let me pick from a list of device drivers on my computer".

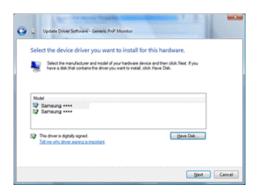


8. Click "Have Disk..." and select the folder (for example, D:\Drive) where the driver setup file is located, and click "OK".





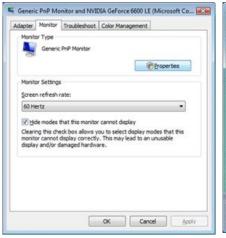
9. Select the model that matches your monitor from the list of monitor models on the screen, and click "Next".

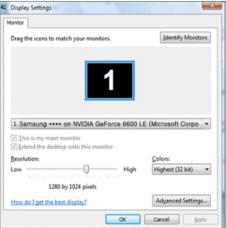


10. Click "Close" "Close" "OK" "OK" on the following screens displayed in sequence.







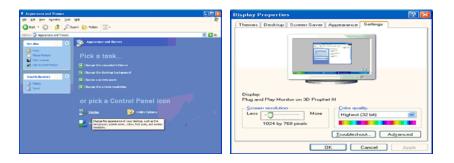


Microsoft® Windows® XP Operating System

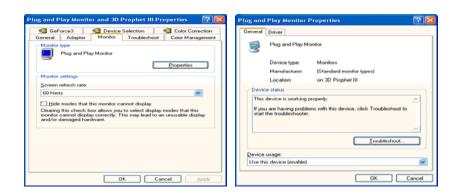
- 1. Insert CD into the CD-ROM drive.
- 2. Click "Start" "Control Panel", then click the "Appearance and Themes" icon.



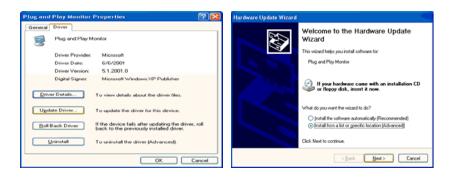
3. Click "Display" icon and choose the "Settings" tab then click "Advanced...".



4. Click the "Properties" button on the "Monitor" tab and select "Driver" tab.



5. Click "Update Driver..." and select "Install from a list or..." then click "Next" button.

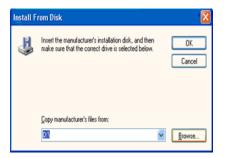


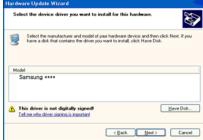
6. Select "Don't search, I will...", then click "Next" and then click "Have disk".





7. Click the "Browse" button then choose A:(D:\Driver) and choose your monitor model in the model list and click the "Next" button.





8. If you can see the following message window, then click the "Continue Anyway" button. Then click "OK" button.





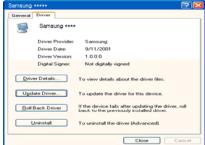
This monitor driver is certified by Microsoft, and this installation will not damage your system.

The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

9. Click the "Close" button, then click the "OK" button continually.







10. Monitor driver installation is completed.

Microsoft® Windows® 2000 Operating System

When you can see "Digital Signature Not Found" on your monitor, follow these steps.

- 1. Choose "OK" button on the "Insert disk" window.
- 2. Click the "Browse" button on the "File Needed" window.
- 3. Choose A:(D:\Driver), then click the "Open" button and then click "OK" button.

How to install

- 1. Click "Start", "Setting", "Control Panel".
- 2. Double click the "Display" icon.
- 3. Select the "Settings" tab and click "Advanced Properties" button.
- 4. Choose "Monitor".

Case1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation

Case2 : If the "Properties" button is active, click the "Properties" button, then follow the next steps.

- 5. Click "Driver" and then click on "Update Driver...", then click on the "Next" button.
- 6. Choose "Display a list of the known drivers for this device so that I can choose a specific driver", then click "Next" and then click "Have disk".
- 7. Click the "Browse" button, then choose A:(D:\Driver).
- 8. Click the "Open" button, then click "OK" button.
- 9. Choose your monitor model and click the "Next" button. Then click "Next" button.
- 10. Click the "Finish" button, then the "Close" button.

If you can see the "Digital Signature Not Found" window, then click the "Yes" button. Then click the "Finish" button and the "Close" button.

Microsoft® Windows® Millennium Operating System

- 1. Click "Start", "Setting", "Control Panel".
- 2. Double click the "Display" icon.
- 3. Select the "Settings" tab and click "Advanced Properties" button.
- 4. Select the "Monitor" tab.
- 5. Click the "Change" button in the "Monitor Type" area.
- 6. Choose "Specify the location of the driver".
- 7. Choose "Display a list of all the driver in a specific location...", then click "Next" button.
- 8. Click the "Have Disk" button.
- 9. Specify A:\(D:\driver), then click "OK" button.
- 10. Select "Show all devices" and choose the monitor that corresponds to the one you connected to your computer and click "OK".
- 11. Continue choosing "Close" button and "OK" button until you close the Display Properties dialogue box.

Microsoft® Windows® NT Operating System

- 1. Click "Start", "Settings", "Control Panel", and then double-click "Display" icon.
- 2. In Display Registration Information window, click Settings Tab and then click "All Display Modes".
- Select a mode that you wish to use (Resolution, Number of Colors and Vertical frequency) and then click "OK".
- Click "Apply" button if you see the screen working normally after clicking "Test". If the screen is not normal, change to a different mode (lower mode of resolution, Colors or frequency).



If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Timing Modes in the user guide.

Linux Operating System

To execute X-Window, you need to make the X86Config file, which is a type of system setting file.

- Press "Enter" at the first and the second screen after executing the X86Config file.
- 2. The third screen is for setting your mouse.
- 3. Set a mouse for your computer.
- 4. The next screen is for selecting a keyboard.

- 5. Set a Keyboard for your computer.
- 6. The next screen is for setting your monitor.
- 7. First of all, set a horizontal frequency for your monitor. (You can enter the frequency directly.)
- 8. Set a vertical frequency for your monitor. (You can enter the frequency directly.)
- 9. Enter the model name of your monitor. This information will not affect the actual execution of X-Window.
- 10. You have finished setting up your monitor. Execute X-Window after setting other requested hardware.

IRTOUCH

Touchscreen Control PanelInstalling the Driver

Double-click the shortcut on the desktop, or go to "Start" -> "All Programs" -> "IRTouchSystems" -> "TouchScreen Control Panel" (FIG. 5); then open the Control Panel for the touchscreen.



FIG. (5)

General Control Panel Menu



FIG. (6)

1. Mapping

The control panel can be used to make adjustments or configurations using a USB connection and supports multiple touchscreens connected to the same PC. The panel provides basic information for the touchscreen and allows for calibration. If several touchscreens are mounted on the PC and the status is set to "multi-screens display," then more than one touchscreen will appear in the Touchscreen List. Use [Mapping] to choose a monitor for each touchscreen before calibrating; otherwise, the touchscreens will not work. Follow these steps to configure the settings for multiple touchscreens: Click "Mapping" to make a button-mark appear in the center of each monitor in order of priority. Click the center of the button-mark to acknowledge the mounted touchscreen; If you find no information about the touchscreen, press "Esc" or wait for 30 seconds, and then the program will skip the current touchscreen setting and continue automatically to the next one.

2. Calibrate

This function is applicable to Single Mode and Dualview Mode. In the list of choices for calibrating the touch screen, click [Calibrate]. If all the red circles change to blue icons after you tap them, the calibration is complete.

3. Region Calibrate

This function is applicable to all modes, especially Dual Mode (Horizontal Span or Vertical Span Mode).

Steps

- In "TouchScreen List" of the Touchscreen Control Panel, select "Calibrate of the TouchScreen" and click [Region Calibrate].
- 2. Drag the calibration area. It should be larger than 200 x 200.
- 3. After you finish a four-point calibration, you can touch only the selected area.

Follow these steps to calibrate: Select a touchscreen in the information list; when the calibration window appears, click the "Calibrate" button. Finish the calibration by touching the center of the 4 bull's-eyes in sequence. Press the "Esc" button to exit the calibration. The

"ReCalibrate", "OK" and "Cancel" buttons will appear after the calibration. Select "ReCalibrate" to calibrate again, "OK" to save and exit, or "Cancel" to exit without saving.

Settings

The Settings window is split into 8 areas (FIG. 7):

- 1. Modes
- 2. Enable Touch
- 3. Hide Cursor
- 4. Enable Double Click
- 5. Enable Right Click
- 6. Enable Drag Delay
- 7. Enable Delay Touch
- 8. Enable Beep

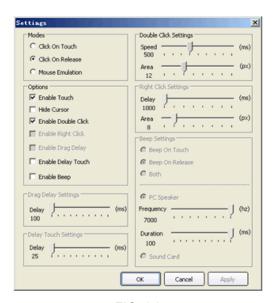


FIG. (7)

Modes

There are three touch modes: "Click on touch," "Click on Release," "Mouse Emulation."

1. Click on touch

A click is recognized when your finger contacts the touchscreen. Note that you cannot drag objects. The touchscreen responds fastest in this mode, which is recommended for big-button applications.

2. Click on Release

This is the default mode. A click is recognized when you lift your finger off the screen. This mode allows precise control and is recommended for small-button applications or hyperlinks to web pages such as POS or other web applications.

3. Mouse Emulation

Mouse functions are emulated, including left-clicking, moving, unclicking, and dragging. This function is recommended if writing, drawing or dragging map is required.

Options

1. Enable Touch

Enable (default) or disable the touchscreen.

2. Hide Cursor

The mouse cursor is not used in some applications; this function allows you to hide the cursor without disabling the mouse function. This is recommended for big buttons used for playing animation or children educational applications with "Click On Touch" mode.

3. Enable Double Click

Double clicking works the same on the touch screen as it does with a mouse. Tap a spot on the screen twice in rapid succession. "Double Click Settings" can be adjusted for optimal double-click performance. "Speed" is set in milliseconds. The higher the value, the longer the effective time interval allowed for double clicks. "Area" (in pixels) is used to either increase or reduce the allowed distance between double clicks. The higher the value (in pixels), the more sensitive the touchscreen is to double clicks. Double-click is supported by the "Click on touch," "Click on Release," and "Mouse Emulation" modes.

4. Enable Right Click

Enable the right-click function. Press and hold any part of the screen for two seconds. The context menu will appear. The right-click function is available only in Mouse Emulation mode. You may adjust the "Delay" in "Right Click Settings" if you find the context menu appears too soon or late.



The higher the value, the later the context menu will appear. "Delay" is set in milliseconds. The "area" determines the jitter-range of the touch surface within an error limit (in pixels). The higher the value, the wider the jitter-range. The context menu will remain displayed as long as your finger presses the screen within the range.

5. Enable Drag Delay

This function shows the time in milliseconds "Drag Delay" will take to be enabled after the option is clicked. Drag Delay may be adjusted (in milliseconds) to the correct value if an object cannot be precisely selected or if the cursor jitters when you touch the touchscreen.

6. Enable Delay Touch

After this function is enabled, the touchscreen will not respond to a quick touch or scratch on the touchscreen. This mode is very useful when you need to press the screen for a while within a specified area.

7. Enable Beep

This function enables or disables the beep sound heard from the PC's built-in speaker, and sets the cycle and frequency of the beeps. You can press the [Apply] button to enable the beep feature after choosing [Enable touch] and vice versa. There are three Beep modes: "Beep on touch," "Beep on Release," "Both."

- Beep on touch: A click is recognized when your finger contacts the touchscreen.
- Beep on Release: A click is recognized when you lift your finger off the screen.

- 3. Both: A click is recognized when your finger contacts the touchscreen and again when you lift your finger off the screen.
- 4. PC Speaker: After installing the driver, you will hear a beep sound by default when a PC card is started. You can change the cycle and sound of the beep.
- 5. Sound Card: Sound is heard via the sound card.



According to the status of the hardware and external factors, you can set the parameters so as to maximize the performance.

Uninstalling the Driver

Double-click "Control Panel" -> "Add or Remove Programs" (FIG. 8), select "IRTOUCHSYSTEMS TouchScreen Driver", and click on "Remove" to uninstall the driver.

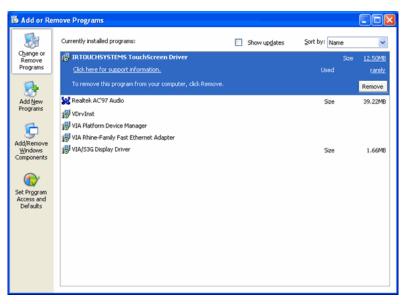
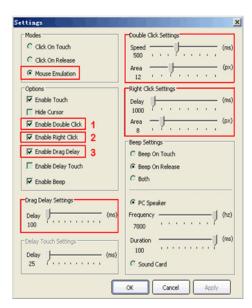


FIG. (8)

General touchscreen settings(For reference)

Select "Mouse Emulation" mode, and then choose "Enable Touch," "Send Right Click," and "Enable Double Click." For general use, "Enable Delay Touch" is not recommended because it slows the touchscreen's response. The touchscreen will not respond if you quickly tap on or quickly drag your finger on the screen.



Installment

1. Enable Double Click

Double clicking works the same on the touch screen as it does with a mouse. Tap an object on the screen twice in rapid succession to open the object. "Speed" should be set to 500-550 milliseconds and "Area" to 32 pixels

2. Enable Right Click

Enable the right-click function (default).

Press and hold any part of the screen for two seconds. The context menu will appear. The right-click function is available only in Mouse Emulation mode. "Delay" should be set to 1000 milliseconds (1 second) and "Area" to 32 pixels.

3. Enable Drag Delay

This function shows the time in milliseconds "Drag Delay" will take to be enabled after the option is touched. Drag Delay may be adjusted (in milliseconds) to the correct value if an object cannot be precisely selected or if the cursor jitters when you touch the touchscreen.

MDC (Multiple Display Control)



Installation

- 1. Insert the installation CD into the CD-ROM drive.
- 2. Click the MDC System installation Program.



If the screen for installing the software does not appear, install it using the MDC System execution file in the MDC folder of the CD-ROM.

- 3. If the installation wizard screen does appear, click "Next."
- 4. The "License Agreement" screen will appear. Click "Yes."
- 5. The "Customer Information" window will appear. Register the user information and click "Yes."
- 6. The "Choose Destination Location" window will appear. Specify the file location to install to and click "Next."



If the file location is not specified, the Program will be installed in the default file location.

- 7. The "Start Copying Files" window will appear. Confirm the file location and click "Next."
- 8. The installation progress screen will appear.
- 9. The "InstallShield Wizard Complete" screen will appear. Click "Finish."



Select "Launch MDC System" and click "Finish." The MDC Program will immediately be run.



10. If the installation is successfully completed, the quick MDC System execution icon will appear on the desktop.

MDC execution icon may not appear depending on specification of computer system or monitor. If that happens, press F5 Key.

Installation Problems

The installation of MDC can be affected by such factors as the video card, motherboard and the network environment.

Uninstall

The MDC Program can be removed only by using the "Add or Remove Programs" option of the Windows® Control Panel.

Perform the following steps remove MDC.

Select "Setting/Control Panel" on the "Start" menu and then double-click "Add/Delete a Program".

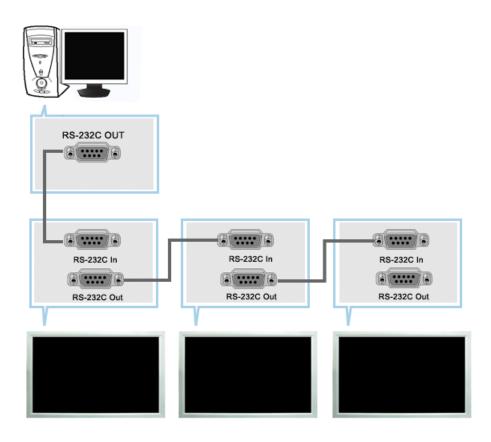
Select MDC System from the list and then click the "Add/Delete" button.

Using Serial MDC

Using Ethernet MDC



Introduction



A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for the communication between a PC and a display. Therefore, a serial cable should be connected between the serial port on a PC and the serial port on a display.

Main Screen

 $\label{eq:click_start} \textit{Slick} \; \textit{Start} \; \textit{>} \; \textit{Program} \; \textit{>} \; \textit{Samsung} \; \textit{>} \; \textit{MDC} \; \textit{System} \; \text{to} \; \textit{start} \; \textit{the} \; \textit{program}.$

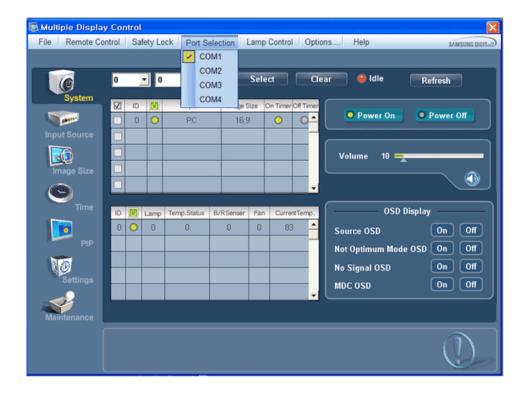
Select a set to see the volume of the selected set within the slider.



- **Main Icons**
- 2 Remote control
- 3 Safety Lock
- Port Selection
- 6 Lamp Control
- 6 Option...
- Dropdown Selectors

- 8 All
- Selection Buttons
- Refresh
- Display Selection
- 2 Info Grid
- (3) Control Tools
- 14 OSD Display
- 1. Use the main icons to switch into each screen.
- 2. Allows you to enable or disable the remote control signal receiving function of the display unit.
- Set the Safety Lock function.
 When setting the Lock function, you can only operate power and lock buttons on the remote control and set.
- 4. The setting for the PC Serial Port can change. The original value is COM1.
- 5. Selects a Lamp adjustment mode.
- 6. Adjusts the number of LFD IDs and the frequency of search repeats.
- Defines the range of LFD IDs to display. You can select or deselect the displayed IDs using the Select or Clear button.
- 8. All of the monitors can be selected or deselected.
- 9. Selects (Select) or deselects (Clear) LFD IDs displayed by configuring 7 and 8.
- 10. This searches for monitors. The maximum number is indicated in the Max LFD Id field.
- 11. Select a display from Display Selection.
- 12. Use Grid to view brief information on selected display.
- 13. Use Control Tools to control displays.
- 14. Switches the OSD function On/Off.
 - May not be supported depending on the product.
 - <Note> The remote control Enable/Disable function operates whether or not the power is On/Off, and this applies to all displays connected to the MDC. However, regardless of the status at the time the MDC is shut down, the remote control signal receiving function of all displays is initialized to Enable when the MDC is closed.

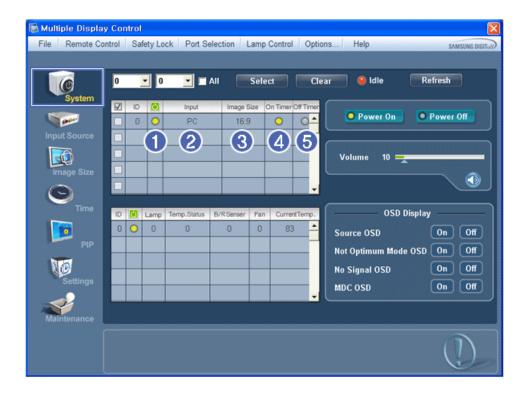
Port Selection



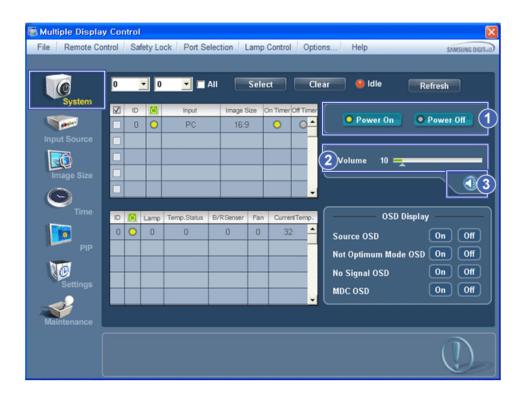
- 1. The Multiple Display Control is originally set to COM1.
- 2. If any port other than COM1 is used, COM1 through COM4 can be selected in the Port Selection Menu.
- If the exact port name that is connected to the LCD Display using a serial cable is not selected, communication will be unavailable.
- 4. The selected port is stored in the program and used for the next program as well.



1. Click System in the main menu to open the system adjustment screen.



- * Info Grid shows some basic information necessary to System.
 - 1) [Ower Status]
 - 2) Input
 - 3) Image Size
 - 4) On Timer
 - 5) Off Timer
- 2. Selects displays you want to adjust using the Select button or checkboxes.

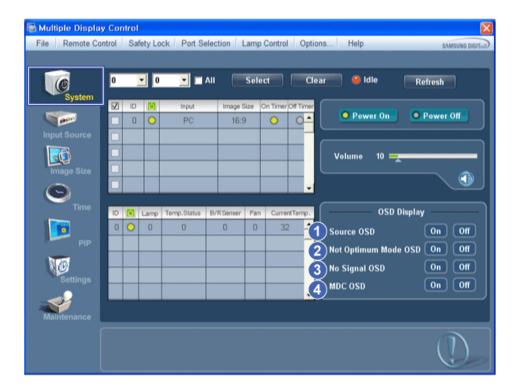


- * System allows controlling some of the functions of the selected display.
- 1) Power On/Off

- Turns the power of the selected display On/Off.
- 2) Volume
 - Controls the volume level of the selected display.
 It receives the volume value of the selected display from the sets and displays it in the slider.

(If you deselect a single display or all displays, the default value 10 will be restored.)

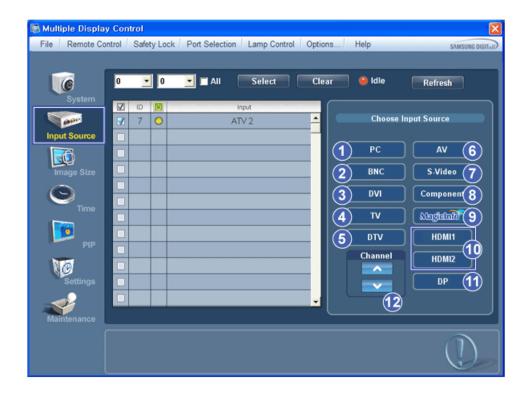
- 3) (Mute On/Off)
 - Turns on/off the Mute function of the selected display.
 When selecting one set at a time, turn on the Mute function for the selected set.
 The Mute function is disabled automatically when you adjust the volume level.
 (The values return to the default settings when you undo the selections or choose "Select All".)
- * The Volume Control and Mute features are available only for the displays whose power status is ON.
- 3. Selects whether to display the menu screen using the OSD Display menu.



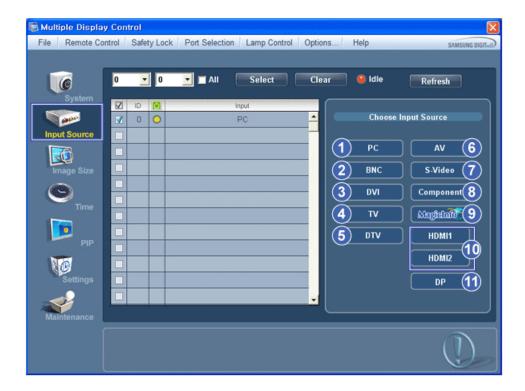
- 1) Source OSD
 - Sets whether the Source OSD will be displayed to indicate when the Source is changed.
- 2) Not Optimum Mode OSD
 - Sets whether the Optimum Mode OSD will be displayed to indicate if the current mode is not supported.
- 3) No Signal OSD
 - Sets whether the No Signal OSD will be displayed to indicate when there is no signal.
- 4) MDC OSD
 - Sets whether the MDC OSD will be displayed to indicate when the settings are changed using the MDC.



- Click Input Source of the main icons and the Input Source control screen appears.
 Selects displays you want to adjust using the Select button or checkboxes.
- TV Mode



• PC Mode



- * Info Grid shows some basic information necessary to Input Source Control.
- 1) PC
 - Changes the Input Source of the selected display to PC.
- 2) BNC
 - Changes the Input Source of the selected display to BNC.
- 3) DV
 - Changes the Input Source of the selected display to DVI.
- 4) T
 - Changes the Input Source of the selected display to TV.

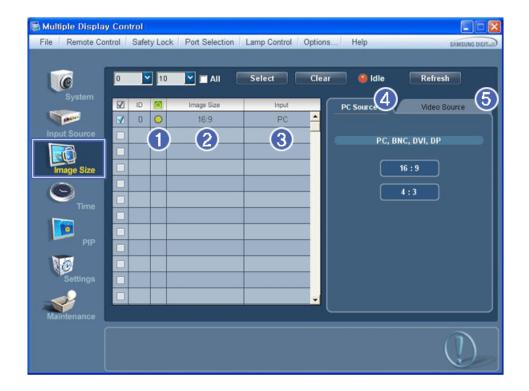
- 5) DTV
 - Changes the Input Source of the selected display to DTV.
- 6) A\
 - Changes the Input Source of the selected display to AV.
- 7) S-Video
 - Changes the Input Source of the selected display to S-Video.
- 8) Component
 - Changes the Input Source of the selected display to Component.
- 9) MagicInfo
 - The Input source of MagicInfo works only on MagicInfo model.
- 10) HDMI1/HDMI2
 - Changes the Input Source of the selected display to HDMI.
- 11) DF
 - Switches the input source for the selected Display to DP.
- 12) Channel
 - Channel arrow appears when the Input Source is TV.
- **#** HDMI2 may not be supported depending on the product.
- * DP may not be supported depending on the product.
- TV Source can be selected only in products with TV and controlling channels is allowed only when Input Source is TV.
- * The Input Source Control feature is available only for the displays whose power status is ON.



Image Size

PC, BNC, DVI, DP

1. Click Image Size of the main icons and the Image Size control screen appears.



- * Info Grid shows some basic information necessary to Image Size Control.
- 1) [6] (Power Status)
 - Shows the power status of the current display.
- 2) Image Size
 - Shows the current Image Size of the display in use.

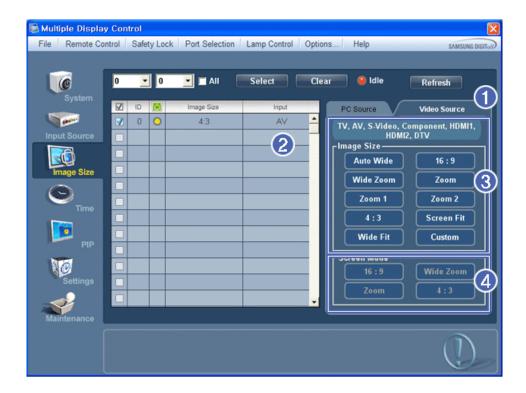
- 3) Inpu
 - Info Grid displays only the displays whose Input Source is PC, BNC, DVI and DP.
- 4) PC Source
 - Click Image Size in the main menu to display the PC, BNC, DVI and DP tabs.
 - The Image Size Control button controls Image Size available for PC, BNC, DVI and DP.
- 5) Video Source
 - Using the Image Size adjustment button, you can adjust the Image Size to a value available in the PC, BNC, DVI and DP.
- * DP may not be supported depending on the product.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- # Image Size Control is available only for the displays for which power status is ON.



Image Size

TV, AV, S-Video, Component, DVI (HDCP), HDMI1, HDMI2, DTV.

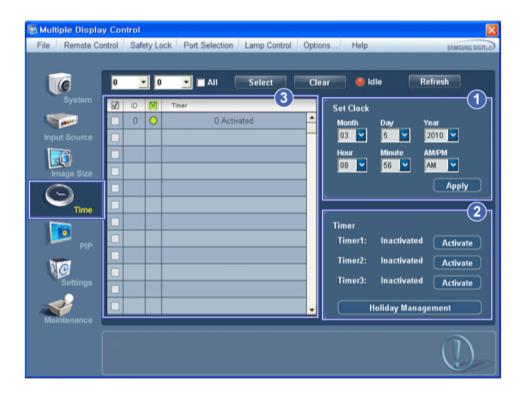
1. Click Image Size of the main icons and the Image Size control screen appears.



- * Info Grid shows some basic information necessary to Image Size Control.
- 1) To adjust Image Size in TV, AV, S-Video, Component, HDMI1, HDMI2 or DTV mode, click the Video Source tab. Select the display you want to adjust by using the Select button or by checking the checkbox.
- 2) Info Grid displays only the display having TV, AV, S-Video, Component, HDMI1, HDMI2 or DTV as input source.
- 3) Switch Image Size of the selected display randomly.
- 4) The screen modes can only be adjusted when a TV (PAL only) is connected and the Image Size item is set to Auto Wide.
- * HDMI2 may not be supported depending on the product.
- * Custom may not be supported depending on the product.
- * Auto Wide, Zoom1 and Zoom2 are not available for selection when the input signal type for Component and DVI (HDCP) is 720p or 1080i.
 - (The Auto Wide mode is available only for TV, AV, and S-Video.)
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- 🜟 The Image Size Control feature is available only for the displays whose power status is ON.



1. Click Time of the main icons and the Time Control screen appears.

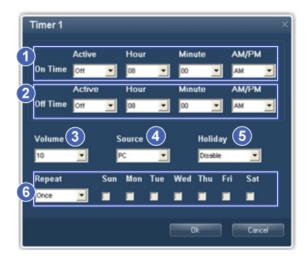


- * Info Grid shows some basic information necessary to Time Control.
- 1) Set clock
 - Set the current time for the selected display (PC Time).
 - To change the current time, first change the PC Time.
- 2) Timer
 - Sets up Timer1, Timer2, Timer3 and Holiday Management.
- 3) Shows whether Timer is activated.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- * Time Control is available only for the displays for which the power status is ON.



Setting up Timer and Holiday Management

1. 1. Setting up Timer1, Timer2 and Timer3



1) On Time

- Sets the time in hours, in minutes and as AM/PM for turning the selected monitor on.

2) Off Time

- Sets the time in hours, in minutes and as AM/PM for turning the selected monitor off.

3) Volume

- Selects the volume when the selected monitor is turned on.

4) Source

- Selects the external input source that will be displayed when the selected monitor is turned on.

5) Holiday

- Applies the Holiday Management function to the Timer.

6) Repear

- Available selections include Once, EveryDay, Mon~Fri, Mon~Sat, Sat~Sun, and Manual.

- Once : The Timer goes off only once.
- EveryDay: EveryDay: The Timer repeats daily.
- Mon~Fri : The Timer repeats from Monday through Friday.
- Mon~Sat: The Timer repeats from Monday through Saturday.
- Sat~Sun : The Timer repeats from Saturday to Sunday
- Manual : Select a day of the week you want the Timer to go off.

2. Setting Holiday Management

The Holiday Management function specifies the dates in which the monitor will not be turned on or off by the Timer.



- 1) Specifies the date.
- 2) Delete All
 - Deletes all of the holidays.
- 3) Add

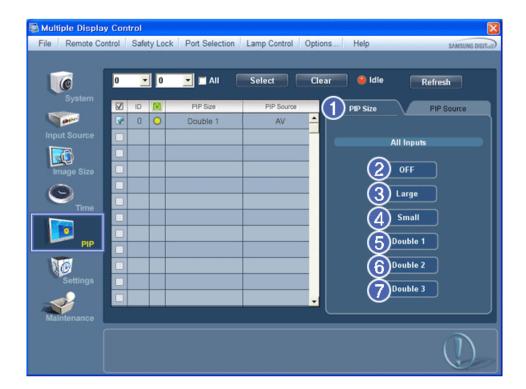
- Adds the specified date.
- 4)
 - Deletes the schedule in the selected line.
- 🜟 The Holiday Management function can be turned on or off in the Timer setup menu.
- 🜟 The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- 🜟 Time Control is available only for the displays for which the power status is ON.
- * Only enabled for a TV when Source is set to TV in On Time mode.
- * Only enabled for a model with MagicInfo installed when Source is set to MagicInfo in On Time mode.



PIP

PIP Size

Click PIP of the main icons and the PIP control screen appears.
 Selects displays you want to adjust using the Select button or checkboxes.



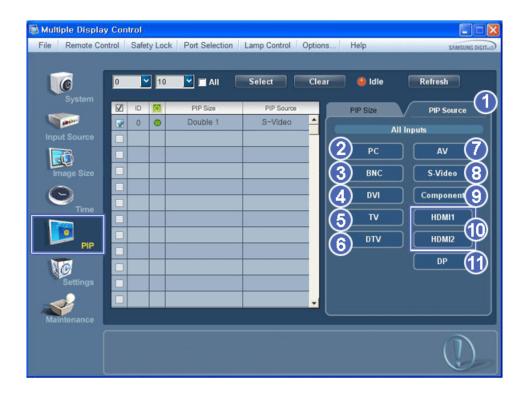
- * Info Grid shows some basic information necessary to PIP Size Control.
- 1) PIP Size
 - Shows the current PIP Size of the display in use.
- 2) OFF
 - Turns off the PIP of the selected display.
- 3) Large
 - Turns on the PIP of the selected display and changes the size to Large.
- 4) Small
 - Turns on the PIP of the selected display and changes the size to Small.
- 5) Double 1
 - Turns on the PIP of the selected display and changes the size to Double 1.
- 6) Double 2
 - Turns on the PIP of the selected display and changes the size to Double 2.
- 7) Double 3 (Picture By Picture)
 - Turns on the PBP of the selected display and changes the size to Double 3.
- * The Input source of MagicInfo works only on MagicInfo model.
- The Input source of TV works only on TV model.

* PIP Size can be controlled with turning on the LCD Display power.



PIP Source

1. Click PIP of the main icons and the PIP control screen appears.



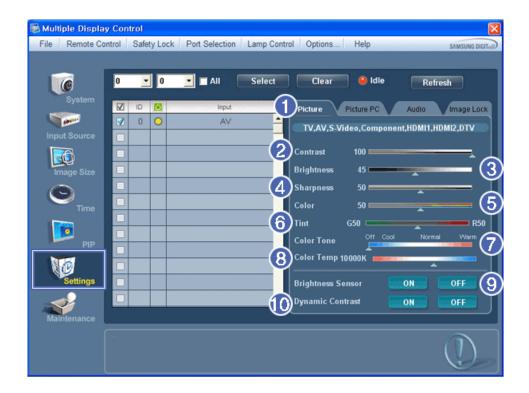
- * Info Grid shows some basic information necessary to PIP Source Control.
- 1) PIP Source
 - PIP Source can be controlled with turning on the LCD Display power.
- 2) PC
 - Changes the source of the PIP of the selected display to PC.
- 3) BNC
 - Changes the source of the PIP of the selected display to BNC.
- 4) DVI
 - Changes the source of the PIP of the selected display to DVI.
- 5) TV
 - Changes the source of the PIP of the selected display to TV.
- 6) DTV
 - Changes the source of the PIP of the selected display to DTV.
- AV
 - Changes the source of the PIP of the selected display to AV.
- 8) S-Video
 - Changes the source of the PIP of the selected display to S-Video.
- 9) Component
 - Changes the source of the PIP of the selected display to Component.
- 10) HDMI1/HDMI2
 - Changes the source of the PIP of the selected display to HDMI.
- 11) DP
 - Switches the PIP Source of the selected Display to DP.
- **#** HDMI2 may not be supported depending on the product.
- DP may not be supported depending on the product.
- Some of the PIP Sources may not be available for selection, depending on the input source type of the Main Screen.
- * The Input source of MagicInfo works only on MagicInfo model.

The PIP Control feature is available only for the displays whose power status is ON and the PIP function is set to ON.



Picture

1. Click Settings of the main icons and the Settings Control screen appears.



- ★ Basic information required to adjust the Picture is displayed in the main menu. Settings for the selected monitor will be displayed if one of the connected monitors is selected, and the default settings will be displayed if all monitors are selected by clicking All and Select. If a value is changed in this screen, the current mode will automatically switch to custom mode.
- 1) Picture
 - Available only for TV, AV, S-Video, Component, HDMI1, HDMI2, DTV.
- 2) Contrast
 - Adjusts Contrast of the selected display.
- 3) Brightness
 - Adjusts Brightness of the selected display.
- 4) Sharpness
 - Adjusts Sharpness of the selected display.
- 5) Colo
 - Adjusts Color of the selected display.
- 6) Tint
 - Adjusts Tint of the selected display.
 - Available only for NTSC.
- 7) Color Tone
 - Adjusts the Color Tone for the selected display.
- 8) Color Temp
 - Adjusts the Color Temp for the selected display.
- 9) Brightness Sensor
 - Adjusts the Brightness Sensor for the selected display.
- 10) Dynamic Contrast

- Adjusts the Dynamic Contrast for the selected display.
- HDMI2 may not be supported depending on the product.
- Brightness Sensor may not be supported depending on the product.
- The Input source of MagicInfo works only on MagicInfo model.
- * Color Temp is only enabled if the Color Tone is set to Off.
- * The Input source of TV works only on TV model.
- This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.



Picture PC



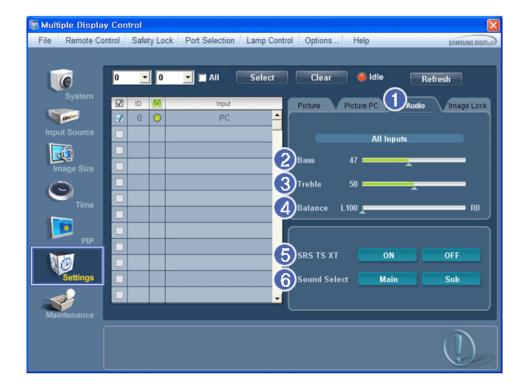
- * Basic information required to adjust settings is displayed. Settings for the corresponding SET will be imported and displayed on the slider if a display ID is selected, and the default settings will be displayed if all display IDs are selected by clicking All and Select. If a value is changed in this screen, the current mode will automatically switch to custom mode.
- 1) Picture PC
 - Available only for PC, BNC, DVI and DP.
- 2) Contrast
 - Adjusts Contrast of the selected display.
- 3) Brightness
 - Adjusts Brightness for the selected display.
- 4) Red
 - Adjusts red Color of the selected display.
 - Available only for NTSC.
- 5) Green
 - Adjusts green Color of the selected display.
 - Available only for NTSC.
- 6) Blue
 - Adjusts blue Color of the selected display.

- Available only for NTSC.
- 7) Color Tone
 - Adjusts the Color Tone for the selected display.
- 8) Color Temp
 - Adjusts the Color Temp for the selected display.
- 9) Brightness Sensor
 - Adjusts the Brightness Sensor for the selected display.
- 10) Dynamic Contrast
 - Adjusts the Dynamic Contrast for the selected display.
- * DP may not be supported depending on the product.
- Brightness Sensor may not be supported depending on the product.
- The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- * Color Temp is only enabled if the Color Tone is set to Off.
- This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.



Settings

Audio



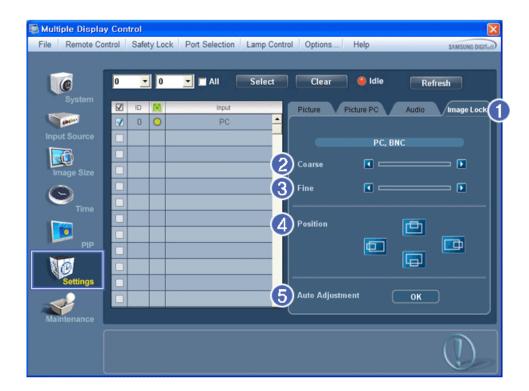
- * Basic information required to adjust Audio is displayed in the display window. Settings for the corresponding SET will be imported and displayed on the slider if a display ID is selected, and the default settings will be displayed if all display IDs are selected by clicking All and Select. If a value is changed in this screen, the current mode will automatically switch to custom mode.
- 1) Audio
 - Controls audio settings for all input sources.
- 2) Bass
 - Adjusts Bass of the selected display.
- 3) Treble
 - Adjusts Treble of the selected display.

- 4) Balance
 - Adjusts Balance of the selected display.
- 5) SRS TS XT
 - SRS TS XT Sound ON/OFF of the selected display.
- 6) Sound Select
 - Select either Main or Sub when PIP is On.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.



Settings

Image Lock

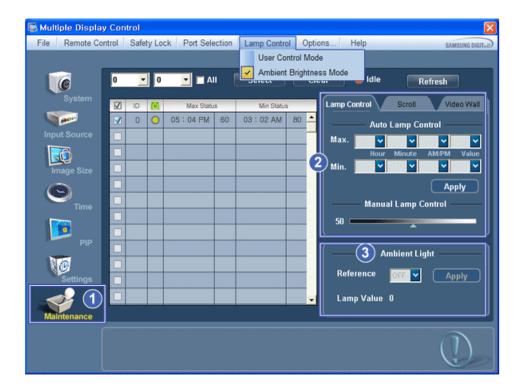


- * Info Grid shows some basic information necessary to Settings Control.
- 1) Image Lock
 - Available only for PC, BNC.
- 2) Coarse
 - Adjusts Coarse of the selected display.
- 3) Fine
 - Adjusts Fine of the selected display.
- 4) Position
 - Adjusts Position of the selected display.
- 5) Auto Adjustment
 - Self-Adjust to the incoming PC signal.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- * Settings Control is available only for the displays for which the power status is ON.



Lamp Control

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



- An "Info Grid" showing several basic data items appears.
- 1) Maintenance
 - Allows the Maintenance Control function for all input sources.
- 2) Lamp Control
 - Automatically adjusts the backlight of the selected display at a specified time.
 The Manual Lamp Control automatically turns off if you adjust using the Auto Lamp Control.
 - Allows you to adjust the backlight of the selected display regardless of the time.

 The Auto Lamp Control automatically turns off if you adjust using the Manual Lamp Control.
- 3) Ambient Light
 - Detects the ambient light intensity at the designated monitor and automatically adjusts the picture brightness.
 - You can specify a Reference value and designate a monitor that will automatically determine Lamp Value (the light intensity from the lamp), based on the ambient light intensity.
- * Ambient Light is only supported for models that have a brightness sensor and is only enabled when Ambient Brightness Mode is selected in the Lamp Control menu.
- Auto Lamp Control and Manual Lamp Control are only enabled when User Control Mode is selected in the Lamp Control menu.
- 🜟 The Maintenance Control feature is available only for the displays whose power status is ON.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.



Scroll

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



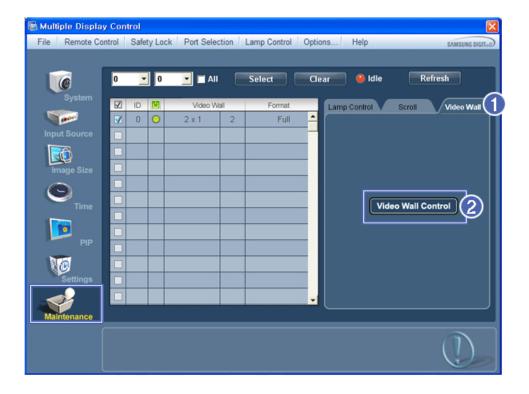
1) Scroll

- This function is used to remove the afterimages that occur when a still screen is displayed on the selected display for a long time.
- 2) Pixel Shift
 - This allows the screen to be moved finely at the specified time interval.
- 3) Safety Screen
 - The Safety Screen function is used to prevent afterimages from occurring when a still screen is displayed on the
 monitor for a long time. The Interval item is used to set the repetition cycle in hour units and the Time item is
 used to set the time when the Safety Screen function must be performed.
 The Type item can be set to Scroll, Pixel, Bar, Eraser, All White, or Pattern.
- 4) Safety Screen2
 - This function is used to prevent afterimages from occurring. There are five (5) types that you can select and control with this function.
- ★ For the Scroll type, the Time item can be set to 1, 2, 3, 4 or 5. For the Bar and Eraser types, it can be set to 10, 20, 30, 40 or 50. For the All White and Pattern type, it can be set to 1, 5, 10, 20 or 30.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- 🜟 The Maintenance Control feature is available only for the displays whose power status is ON.



Video Wall

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.

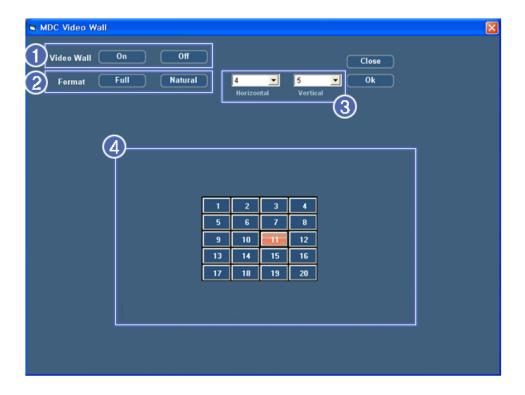


1) Video Wall

- A Video Wall is a set of video screens that are connected together, so that each screen shows a part of the whole picture or so that the same picture is repeated on each screen.

2) Video Wall Control

- Video Wall properties can be configured.

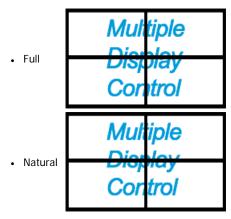


1) On / Off

- Turns on/off the Video Wall function of the selected display.

2) Format

- The format can be selected to see a divided screen.



- 3) Video Wall (Screen divider)
 - The screen can be divided into.

You can select a number of screens with a different layout when dividing.

- Select a mode from Screen divider.
- · Select a display from Display Selection.
- The place will be set up by pressing a number in the selected mode.
- The maximum number of monitors that can be arranged: Horizontal X Vertical = 100
- Up to 15 monitors can be arranged in a row. The maximum value for Horizontal is 6 if Vertical is set to 15 while the maximum value for Vertical is 6 if Horizontal is set to 15.
- 4) Viewing Screen Splits
 - You can view and change the layout of screens using the Screen Divider settings.
- * The range of the Screen Divider setting may differ depending on the model.
- * You may not operate this function in MagicInfo.
- * The Input source of TV works only on TV model.
- * The Maintenance Control function is available only for the displays where the power status is ON.

Troubleshooting

- 1. The display you wish to control does not appear on the System Info Grid
 - Check the connection of RS232C. (Check if it is properly connected to the Com1 port
 - Check the displays to see if any of the other displays connected have the same ID. If more than one displays have the same ID, those displays are not properly detected by the program due to data conflict.
 - For monitors that support a Set ID between 0 to 99, you have to set the Set ID to a value between 0 and 99.

Note: Check if the Set ID of the monitor is a value between 0 and 99 (set the value using the Display menu).

- 2. The display you wish to control does not appear on the other Control Info Grids
 - Check to see if the display power is ON. (You can check this in System Info Grid)
 - Check if you can change the input source of the display.
- 3. The dialogue box appears repeatedly.
 - Check to see if the display you wish to control is selected.
- 4. Both On Timer and Off Timer have been set but different time is showing.
 - Apply current time to synchronize the display clocks.
- 5. The remote may not function properly when you turn off the remote Function, disconnect the RS-232C cable, or exit the program in an Irregular manner. Rerun the program and turn the remote function again to Restore normal functions.
 - <Note> This program may malfunction due to problems in communication circuits or interference from electronic appliances nearby.



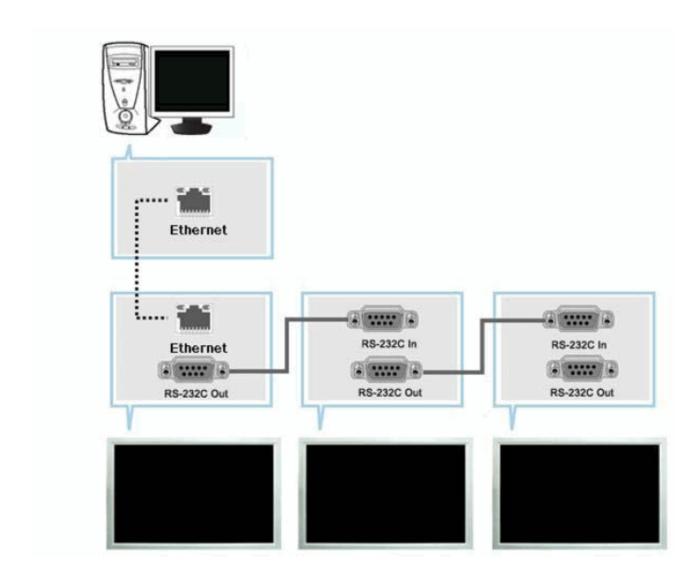
Settings Value Display In Multiple Display Mode

- * When there are more than one displays connected, the settings values are displayed as follows.
- 1. No selection: Displays the Factory Default Value.
- 2. Selected one display: Fetches and displays the settings value for the selected display.
- 3. Selected one display (ID1) and add another display (ID3): The program, which was displaying the settings value of ID 1, fetches and displays the value of ID3.
- 4. If all sets are selected at the same time by clicking All and Select, the default value will be restored.

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Introduction



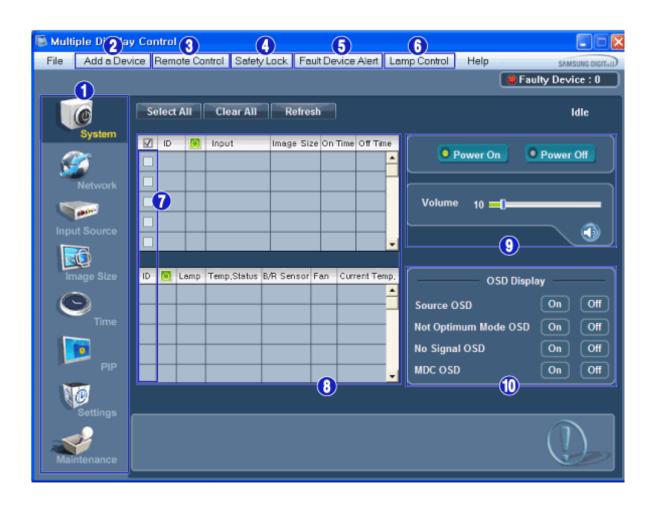
Unlike the previous method which used the serial data communication specifications RS-232C, an $\mathsf{Eth}\varepsilon$ function has been added.

Connect the first display device and the PC by entering the IP address. To connect to another display use an RS-232C serial cable. Refer to the figure above.

Main Screen

Click Start > Program > Samsung > MDC System to start the program.

Select a set to see the volume of the selected set within the slider.

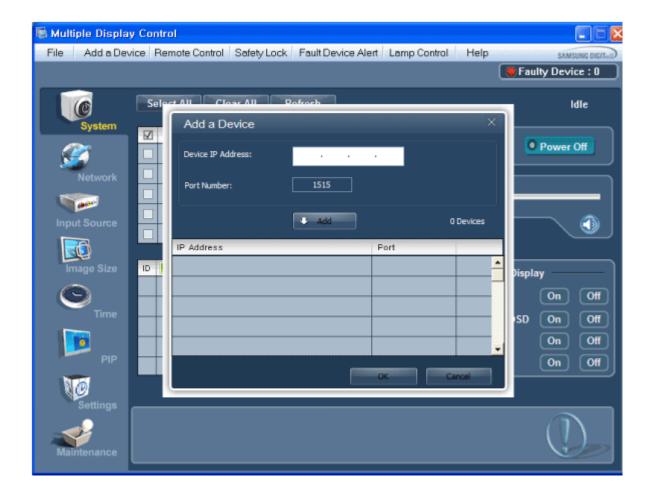


- Main Icons
- Add a Device
- Remote Control
- 4 Safety Lock
- Fault Device Alert

- 6 Lamp Control
- 7 Display Selection
- 8 Info Grid
- **9** Control Tools
- OSD Display
- 1. Use the main icons to switch into each screen.
- 2. You can add a device by entering the IP address configured on the monitor.
- 3. Allows you to enable or disable the remote control signal receiving function of the display unit.
- 4. Set the Safety Lock function.
 When setting the Lock function, you can only operate power and lock buttons on the remote contro
- 5. When connecting to the monitor fails, it turns the function that transfers the result through an ema
- 6. Selects a Lamp adjustment mode.
- 7. Select a display from Display Selection.
- 8. All of the monitors can be selected or deselected.

- 9. Use Control Tools to control displays.
- 10. Switches the OSD function On/Off.
 - May not be supported depending on the product.
 - <Note> The remote control Enable/Disable function operates whether or not the power is On/Of applies to all displays connected to the MDC. However, regardless of the status at the tir MDC is shut down, the remote control signal receiving function of all displays is initialized Enable when the MDC is closed.

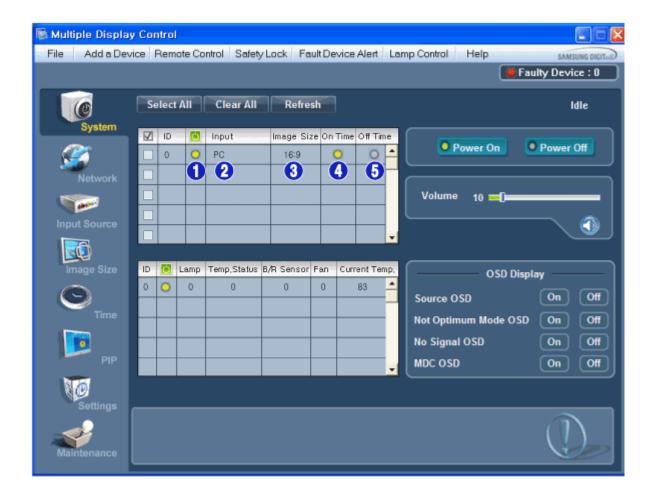
Add a Device



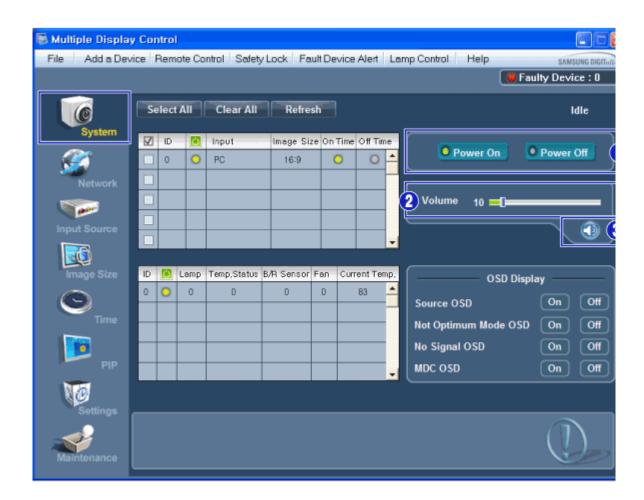
1. Enter the IP address of the monitor to be connected and press the Add button to add the IP address click the OK button, adding the monitor is completed.



1. Click System in the main menu to open the system adjustment screen.



- * Info Grid shows some basic information necessary to System.
- 1) [6] (Power Status)
- 2) Input
- 3) Image Size
- 4) On Timer
- 5) Off Timer
- 2. Selects displays you want to adjust using the Select All button or checkboxes.

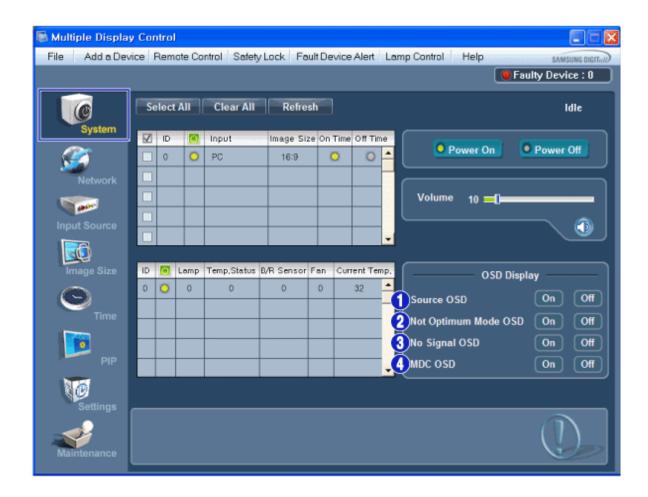


- * System allows controlling some of the functions of the selected display.
- 1) Power On/Off
 - Turns the power of the selected display On/Off.
- 2) Volume
 - Controls the volume level of the selected display.

 It receives the volume value of the selected display from the sets and displays it in the slider.

(If you deselect a single display or all displays, the default value 10 will be restored.)

- 3) (Mute On/Off)
 - Turns on/off the Mute function of the selected display.
 When selecting one set at a time, turn on the Mute function for the selected set.
 The Mute function is disabled automatically when you adjust the volume level.
 (The values return to the default settings when you undo the selections or choose "Select All".)
- ***** The Volume Control and Mute features are available only for the displays whose power : ON.
- 3. Selects whether to display the menu screen using the OSD Display menu.



- 1) Source OSD
 - Sets whether the Source OSD will be displayed to indicate when the Source is changed.
- 2) Not Optimum Mode OSD
 - Sets whether the Optimum Mode OSD will be displayed to indicate if the current mode is not supp
- 3) No Signal OSD
 - Sets whether the No Signal OSD will be displayed to indicate when there is no signal.
- 4) MDC OSD
 - Sets whether the MDC OSD will be displayed to indicate when the settings are changed using the



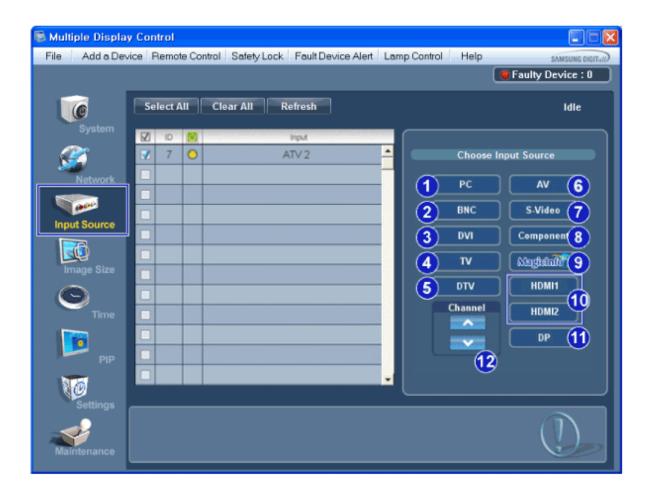


- 1) Select or clear all the added devices; or refresh or delete selected devices.
- 2) The IP Address, ID (Ethernet or Serial), Mac Address and connection status of the connected monito
- 3) It can automatically check whether DHCP IP is set and then set the IP address.
- 4) It can automatically or manually set and then apply the IP Address, Subnet and Gateway of the sele

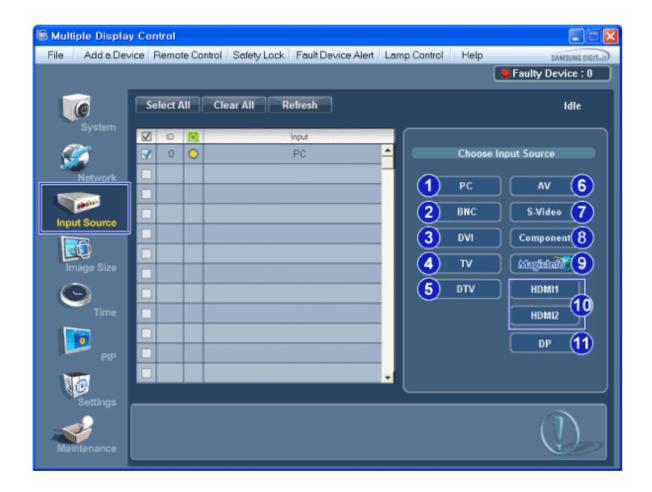


🚃 Input Source

- Click Input Source of the main icons and the Input Source control screen appears. 1) Selects displays you want to adjust using the Select All button or checkboxes.
 - TV Mode



• PC Mode



- * Info Grid shows some basic information necessary to Input Source Control.
- 1) PC
 - Changes the Input Source of the selected display to PC.
- 2) BNC
 - Changes the Input Source of the selected display to BNC.
- 3) DVI
 - Changes the Input Source of the selected display to DVI.
- 4) TV
 - Changes the Input Source of the selected display to TV.
- 5) DTV
 - Changes the Input Source of the selected display to DTV.
- 6) AV
 - Changes the Input Source of the selected display to AV.
- 7) S-Video
 - Changes the Input Source of the selected display to S-Video.
- 8) Component
 - Changes the Input Source of the selected display to Component.
- 9) MagicInfo
 - The Input source of MagicInfo works only on MagicInfo model.
- 10) HDMI1/HDMI2
 - Changes the Input Source of the selected display to HDMI.

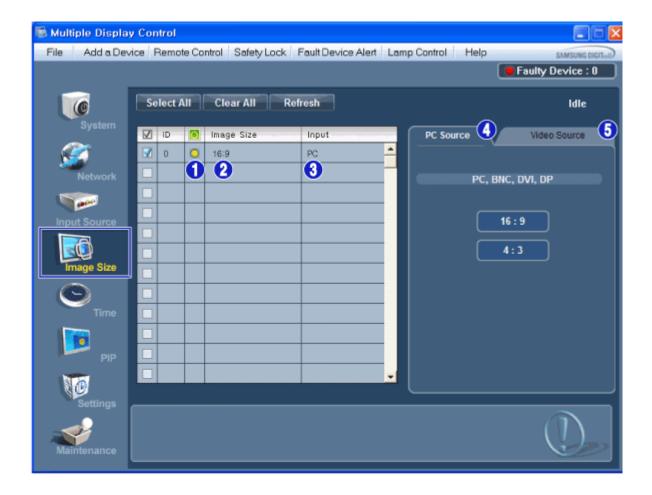
- 11) DP
 - Switches the input source for the selected display to DP.
- 12) Channel
 - Channel arrow appears when the Input Source is TV.
- # HDMI2 may not be supported depending on the product.
- * DP may not be supported depending on the product.
- 🜟 The Input Source Control feature is available only for the displays whose power status is
- ★ TV Source can be selected only in products with TV and controlling channels is allowed of Input Source is TV.



Image Size

PC, BNC, DVI, DP

1. Click Image Size of the main icons and the Image Size control screen appears.



- * Info Grid shows some basic information necessary to Image Size Control.
- 1) [6] (Power Status)
 - Shows the power status of the current display.
- 2) Image Size

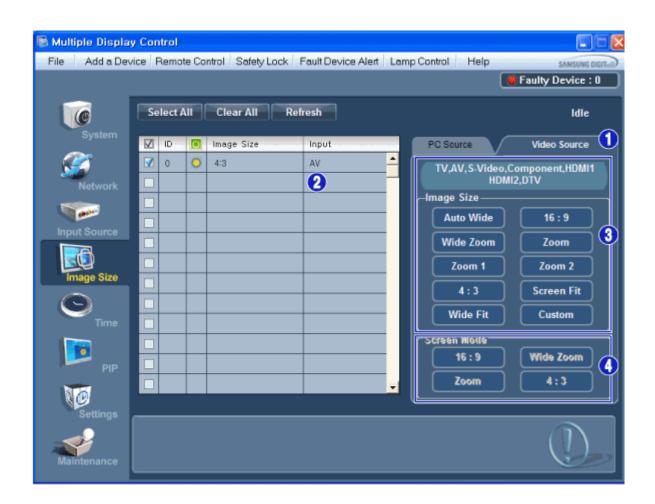
- Shows the current Image Size of the display in use.
- 3) Input
 - Info Grid displays only the displays whose Input Source is PC, BNC, DVI and DP.
- 4) PC Source
 - Click Image Size in the main menu to display the PC, BNC, DVI and DP tabs.
 - The Image Size Control button controls Image Size available for PC, BNC, DVI and DP.
- 5) Video Source
 - Click the Video Source tab to control Image Size for respective Input Source.
- * The Input source of MagicInfo works only on MagicInfo model.
- The Input source of TV works only on TV model.
- * Image Size Control is available only for the displays for which power status is ON.
- * DP may not be supported depending on the product.



Image Size

TV, AV, S-Video, Component, DVI (HDCP), HDMI1, HDMI2, DTV

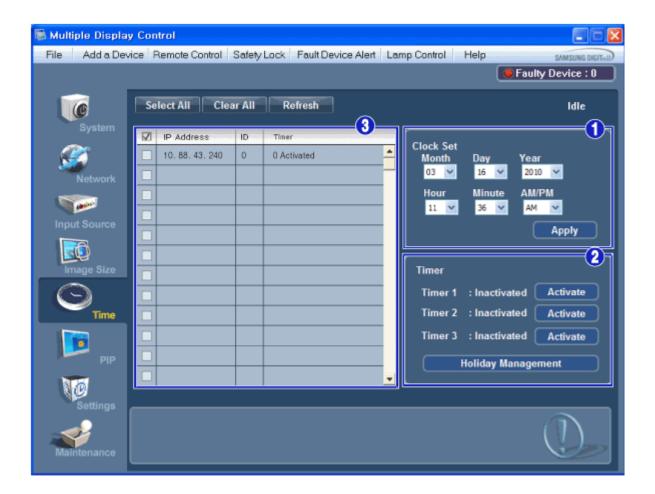
1. Click Image Size of the main icons and the Image Size control screen appears.



- * Info Grid shows some basic information necessary to Image Size Control.
- 1) To adjust Image Size in TV, AV, S-Video, Component, HDMI1, HDMI2 or DTV mode, click the Video tab.
 - Select the display you want to adjust by using the Select All button or by checking the checkbox.
- 2) Info Grid displays only the display having TV, AV, S-Video, Component, HDMI1, HDMI2 or DTV as in
- 3) Switch Image Size of the selected display randomly.
- 4) The screen modes can only be adjusted when a TV (PAL only) is connected and the Image Size item Auto Wide.
- * Custom may not be supported depending on the product.
- Auto Wide, Zoom1 and Zoom2 are not available for selection when the input signal type Component and DVI (HDCP) is 720p or 1080i. (The Auto Wide mode is available only for TV, AV, and S-Video.)
- * The Input source of MagicInfo works only on MagicInfo model.
- The Input source of TV works only on TV model.
- * The Image Size Control feature is available only for the displays whose power status is (
- # HDMI2 may not be supported depending on the product.



1. Click Time of the main icons and the Time Control screen appears.



- * Info Grid shows some basic information necessary to Time Control.
- 1) Clock Set
 - Set the current time for the selected display (PC Time).
 - To change the current time, first change the PC Time.
- 2) Timer
 - Sets up Timer1, Timer2, Timer3 and Holiday Management.
- 3) Shows whether Timer is activated.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- * Time Control is available only for the displays for which the power status is ON.



Setting up Timer and Holiday Management

1. Setting up Timer1, Timer2 and Timer3



1) On Time

- Sets the time in hours, in minutes and as AM/PM for turning the selected monitor on.

2) Off Time

- Sets the time in hours, in minutes and as AM/PM for turning the selected monitor off.

3) Volume

- Selects the volume when the selected monitor is turned on.

4) Source

- Selects the external input source that will be displayed when the selected monitor is turned on.

5) Holiday

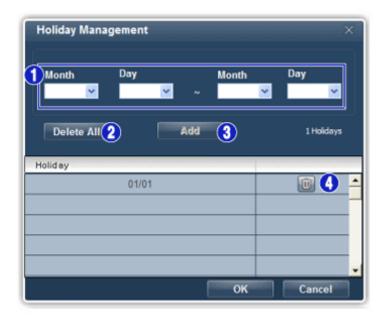
- Applies the Holiday Management function to the Timer.

6) Repeat

- Available selections include Once, EveryDay, Mon~Fri, Mon~Sat, Sat~Sun, and Manual.
 - Once : The Timer goes off only once.
 - EveryDay: The Timer repeats daily.
 - Mon~Fri: The Timer repeats from Monday through Friday.
 - Mon~Sat: The Timer repeats from Monday through Saturday.
 - Sat~Sun: The Timer repeats from Saturday to Sunday.
 - Manual: Select a day of the week you want the Timer to go off.

2. Setting Holiday Management

The Holiday Management function specifies the dates in which the monitor will not be turned on or Timer.



- 1) Specifies the date.
- 2) Delete All
 - Deletes all of the holidays.
- 3) Add
 - Adds the specified date.
- 4)
 - Deletes the schedule in the selected line.
- * The Holiday Management function can be turned on or off in the Timer setup menu.
- * The Input source of MagicInfo works only on MagicInfo model.
- The Input source of TV works only on TV model.
- Time Control is available only for the displays for which the power status is ON.
- * Only enabled for a TV when Source is set to TV in On Time mode.
- Only enabled for a model with MagicInfo installed when Source is set to MagicInfo in Or mode.

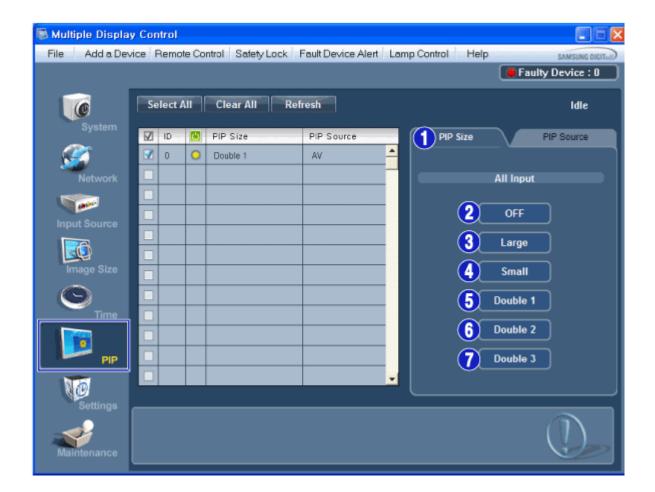


PIP

PIP Size

1. Click PIP of the main icons and the PIP control screen appears.

Selects displays you want to adjust using the Select All button or checkboxes.

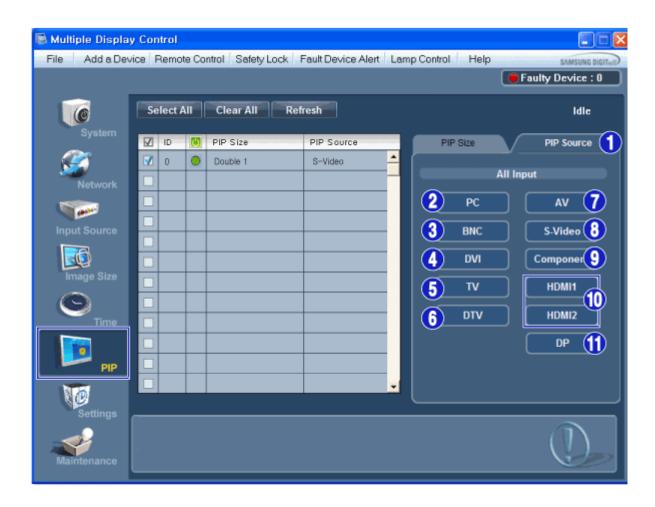


- * Info Grid shows some basic information necessary to PIP Size Control.
- 1) PIP Size
 - Shows the current PIP Size of the display in use.
- 2) OFF
 - Turns off the PIP of the selected display.
- 3) Large
 - Turns on the PIP of the selected display and changes the size to Large.
- 4) Small
 - Turns on the PIP of the selected display and changes the size to Small.
- 5) Double 1
 - Turns on the PIP of the selected display and changes the size to Double 1.
- 6) Double 2
 - Turns on the PIP of the selected display and changes the size to Double 2.
- 7) Double 3 (Picture By Picture)
 - Turns on the PBP of the selected display and changes the size to Double 3.
- * PIP Size can be controlled with turning on the LCD Display power.
- The Input source of TV works only on TV model.
- The Input source of MagicInfo works only on MagicInfo model.



PIP Source

1. Click PIP of the main icons and the PIP control screen appears.



- Info Grid shows some basic information necessary to PIP Source Control.
- 1) PIP Source
 - PIP Source can be controlled with turning on the LCD Display power.
- 2) PC
 - Changes the source of the PIP of the selected display to PC.
- 3) BNC
 - Changes the source of the PIP of the selected display to BNC.
- 4) DVI
 - Changes the source of the PIP of the selected display to DVI.
- 5) TV
 - Changes the source of the PIP of the selected display to TV.
- 6) DTV
 - Changes the source of the PIP of the selected display to DTV.
- 7) AV
 - Changes the source of the PIP of the selected display to AV.
- 8) S-Video
 - Changes the source of the PIP of the selected display to S-Video.

- 9) Component
 - Changes the source of the PIP of the selected display to Component.
- 10) HDMI1/HDMI2
 - Changes the source of the PIP of the selected display to HDMI.
- 11) DP
 - Switches the PIP Source of the selected Display to DP.
- Some of the PIP Sources may not be available for selection, depending on the input soul of the Main Screen.
- ★ The PIP Control feature is available only for the displays whose power status is ON and function is set to ON.
- # HDMI2 may not be supported depending on the product.
- * DP may not be supported depending on the product.
- * The Input source of MagicInfo works only on MagicInfo model.
- * HDMI2 may not be supported depending on the product.



Setting

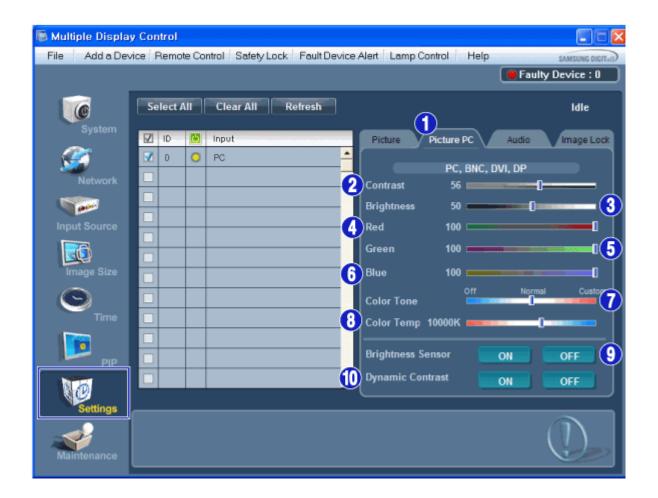
Picture



- * Basic information required to adjust the Picture is displayed in the main menu. Settings for the select monitor will be displayed if one of the connected monitors is selected, and the default settings will be displayed if all monitors are selected by clicking All and Select. If a value is changed in this screen, to mode will automatically switch to custom mode.
- Picture
 - Available only for TV, AV, S-Video, Component, HDMI1, HDMI2, DTV.
- 2) Contrast
 - Adjusts Contrast of the selected display.
- 3) Brightness
 - Adjusts Brightness of the selected display.
- 4) Sharpness
 - Adjusts Sharpness of the selected display.
- 5) Color
 - Adjusts Color of the selected display.
- 6) Tint
 - Adjusts Tint of the selected display.
 - Available only for NTSC.
- 7) Color Tone
 - Adjusts the Color Tone for the selected display.
- 8) Color Temp
 - Adjusts the Color Temp for the selected display.
- 9) Brightness Sensor
 - Adjusts the Brightness Sensor for the selected display.
- 10) Dynamic Contrast
 - Adjusts the Dynamic Contrast for the selected display.
- * Brightness Sensor may not be supported depending on the product.
- * The Input source of MagicInfo works only on MagicInfo model.
- * Color Temp is only enabled if the Color Tone is set to Off.
- The Input source of TV works only on TV model.
- This feature is available only for the displays whose power status is ON and if no selection made, the factory default is displayed.
- HDMI2 may not be supported depending on the product.



Picture PC



- * Basic information required to adjust settings is displayed. Settings for the corresponding SET will be and displayed on the slider if a display ID is selected, and the default settings will be displayed if all are selected by clicking All and Select. If a value is changed in this screen, the current mode will aut switch to custom mode.
- 1) Picture PC
 - Available only for PC, BNC, DVI and DP.
- 2) Contrast
 - Adjusts Contrast of the selected display.
- 3) Brightness
 - Adjusts Brightness for the selected display.
- 4) Red
 - Adjusts red Color of the selected display.
 - Available only for NTSC.
- 5) Green
 - Adjusts green Color of the selected display.
 - Available only for NTSC.
- 6) Blue
 - Adjusts blue Color of the selected display.
 - Available only for NTSC.
- 7) Color Tone
 - Adjusts the Color Tone for the selected display.
- 8) Color Temp

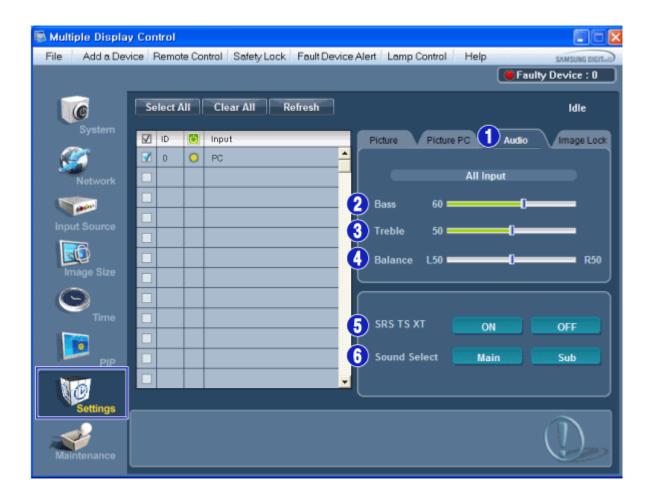
- Adjusts the Color Temp for the selected display.
- 9) Brightness Sensor
 - Adjusts the Brightness Sensor for the selected display.
- 10) Dynamic Contrast
 - Adjusts the Dynamic Contrast for the selected display.
- * Brightness Sensor may not be supported depending on the product.
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.
- * Color Temp is only enabled if the Color Tone is set to Off.
- This feature is available only for the displays whose power status is ON and if no selection made, the factory default is displayed
- * DP may not be supported depending on the product.



Setting

Audio

1. Click Settings of the main icons and the Settings Control screen appears.



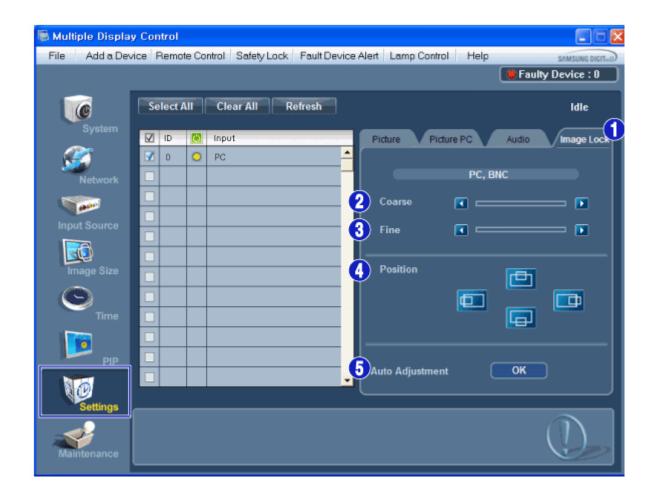
* Basic information required to adjust Audio is displayed in the display window. Settings for the corres

SET will be imported and displayed on the slider if a display ID is selected, and the default settings v displayed if all display IDs are selected by clicking All and Select. If a value is changed in this screen current mode will automatically switch to custom mode.

- 1) Audio
 - Controls audio settings for all input sources.
- 2) Bass
 - Adjusts Bass of the selected display.
- 3) Treble
 - Adjusts Treble of the selected display.
- 4) Balance
 - Adjusts Balance of the selected display.
- 5) SRS TS XT
 - SRS TS XT Sound ON/OFF of the selected display.
- 6) Sound Select
 - Select either Main or Sub when PIP is On.
- This feature is available only for the displays whose power status is ON and if no selection made, the factory default is displayed.
- * The Input source of MagicInfo works only on MagicInfo model.
- The Input source of TV works only on TV model.



Image Lock



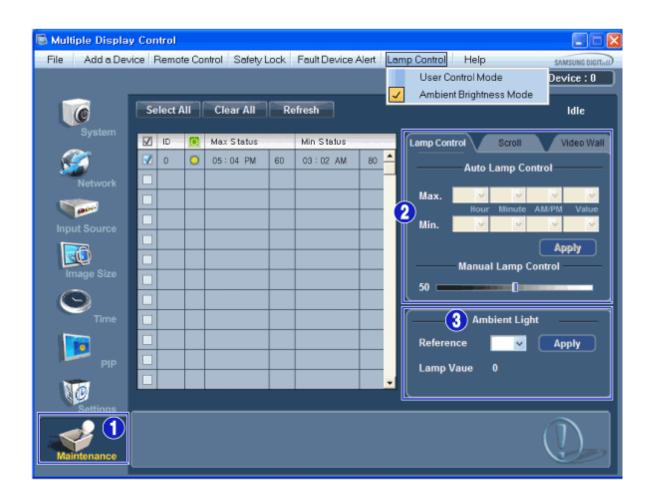
- * Info Grid shows some basic information necessary to Settings Control.
- 1) Image Lock
 - Available only for PC, BNC.
- 2) Coarse
 - Adjusts Coarse of the selected display.
- 3) Fine
 - Adjusts Fine of the selected display.
- 4) Position
 - Adjusts Position of the selected display.
- 5) Auto Adjustment
 - Self-Adjust to the incoming PC signal.
- 🕇 The Maintenance Control feature is available only for the displays whose power status is
- 🕇 The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.



Maintenance

Lamp Control

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



- * An "Info Grid" showing several basic data items appears.
- 1) Maintenance
 - Allows the Maintenance Control function for all input sources.
- 2) Lamp Control
 - Automatically adjusts the backlight of the selected display at a specified time.

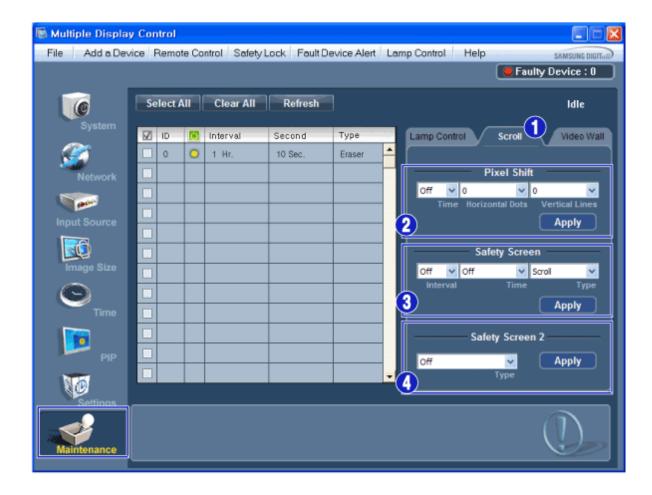
 The Manual Lamp Control automatically turns off if you adjust using the Auto Lamp Control.
 - Allows you to adjust the backlight of the selected display regardless of the time.

 The Auto Lamp Control automatically turns off if you adjust using the Manual Lamp Control.
- 3) Ambient Light
 - Detects the ambient light intensity at the designated monitor and automatically adjusts the picture brightness.
 - You can specify a Reference value and designate a monitor that will automatically determine Lam_| (the light intensity from the lamp), based on the ambient light intensity.
- * Ambient Light is only supported for models that have a brightness sensor and is only enwhen Ambient Brightness Mode is selected in the Lamp Control menu.
- * Auto Lamp Control and Manual Lamp Control are only enabled when User Control Mode selected in the Lamp Control menu.
- The Maintenance Control feature is available only for the displays whose power status is
- The Input source of MagicInfo works only on MagicInfo model.
- 🜟 The Input source of TV works only on TV model.



Scroll

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



1) Scroll

- This function is used to remove the afterimages that occur when a still screen is displayed on the sele display for a long time.

2) Pixel Shift

- This allows the screen to be moved finely at the specified time interval.

3) Safety Screen

- The Safety Screen function is used to prevent afterimages from occurring when a still screen is display the monitor for a long time. The Interval item is used to set the repetition cycle in hour units and the item is used to set the time when the Safety Screen function must be performed. The Type item can be set to Scroll, Pixel, Bar, Eraser, All White, or Pattern.

4) Safety Screen2

- This function is used to prevent afterimages from occurring. There are five (5) types that you can sele control with this function.



For the Scroll type, the Time item can be set to 1, 2, 3, 4 or 5. For the Bar and Eraser types,

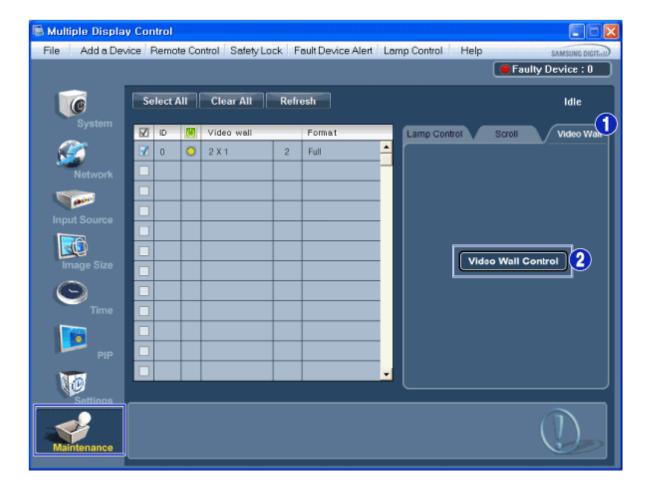
set to 10, 20, 30, 40 or 50. For the All White and Pattern type, it can be set to 1, 5, 10, 20 or

- The Maintenance Control feature is available only for the displays whose power status is ON
- * The Input source of MagicInfo works only on MagicInfo model.
- * The Input source of TV works only on TV model.

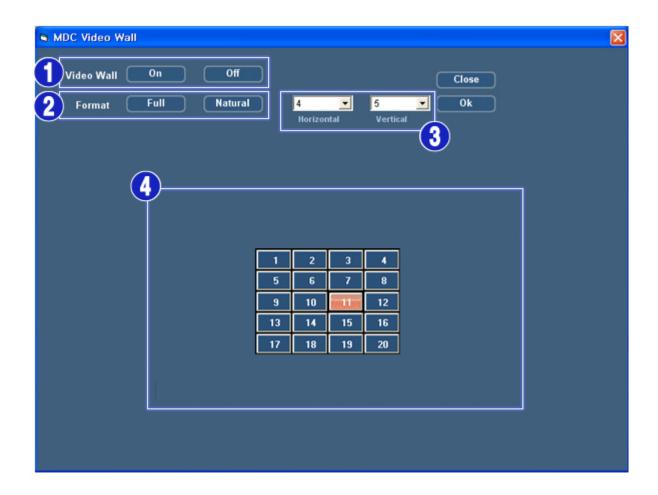


Video Wall

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.



- 1) Video Wall
 - A Video Wall is a set of video screens that are connected together, so that each screen shows a p whole picture or so that the same picture is repeated on each screen.
- 2) Video Wall Control
 - Video Wall properties can be configured.

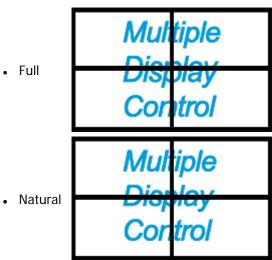


1) On / Off

- Turns on/off the Video Wall function of the selected display.

2) Format

- The format can be selected to see a divided screen.



3) Video Wall (Screen divider)

⁻ The screen can be divided into.

You can select a number of screens with a different layout when dividing.

- Select a mode from Screen divider.
- Select a display from Display Selection.
- The place will be set up by pressing a number in the selected mode.

- The maximum number of monitors that can be arranged: Horizontal X Vertical = 100
- Up to 15 monitors can be arranged in a row. The maximum value for Horizontal is 6 if Vertical i while the maximum value for Vertical is 6 if Horizontal is set to 15.
- 4) Viewing Screen Splits
 - You can view and change the layout of screens using the Screen Divider settings.
- The range of the Screen Divider setting may differ depending on the model.
- * You may not operate this function in MagicInfo.
- * The Input source of TV works only on TV model.
- 🜟 The Maintenance Control function is available only for the displays where the power sta

Troubleshooting

- 1. The display you wish to control does not appear on the System Info Grid
 - Check if the entered IP address is correct and check the connection status of the Ethernet cable.
 - Check the displays to see if any of the other displays connected have the same ID. If more than c have the same ID, those displays are not properly detected by the program due to data conflict.
 - For monitors that support a Set ID between 0 to 99, you have to set the Set ID to a value betwee

Note: Check if the Set ID of the monitor is a value between 0 and 99 (set the value using the Dimenu).

- 2. The display you wish to control does not appear on the other Control Info Grids
 - Check to see if the display power is ON. (You can check this in System Info Grid)
 - Check if you can change the input source of the display.
- 3. The dialogue box appears repeatedly.
 - Check to see if the display you wish to control is selected.
- 4. Both On Timer and Off Timer have been set but different time is showing.
 - Apply current time to synchronize the display clocks.
- 5. The remote may not function properly when you turn off the remote Function, disconnect the Etheri exit the program in an Irregular manner. Rerun the program and turn the remote function again to functions.
 - <Note> This program may malfunction due to problems in communication circuits or interference 1 appliances nearby.



Settings Value Display In Multiple Display Mode

- * When there are more than one displays connected, the settings values are displayed as follows.
- 1. No selection: Displays the Factory Default Value.
- 2. Selected one display: Fetches and displays the settings value for the selected display.
- 3. Selected one display (ID1) and add another display (ID3): The program, which was displaying the svalue of ID 1, fetches and displays the value of ID3.
- 4. If all sets are selected at the same time by clicking All and Select, the default value will be restored.

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Adjusting the LCD Display

Input

Available Modes

- PC / DVI / DisplayPort
- AV
- Component
- 🔢 HDMI
- MagicInfo
- II TV



To watch TV on the product, connect a TV tuner box (sold separately).

Using MagicInfo

To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

Source List PACHMT



Use to select **PC**, HDMI or other external input sources connected to the LCD Display. Use to select the screen of your choice.

- 1. **PC**
- 2. **DVI**
- 3. **AV**
- 4. Component
- 5. **HDMI1**
- 6. **HDMI2**
- 7. DisplayPort
- 8. MagicInfo

9. **TV**- Enabled if a TV tuner box is connected.



The [RGB/COMPONENT IN] port is compatible with RGB (PC) and Component signals.

However, the picture may display abnormally if the connected external input signal is different from the selected video signal.





The PIP function is not available when Video Wall is On.

When external AV devices such as VCRs or DVDs are connected to the LCD Display, **PIP** allows you to watch video from those devices in a small window super-imposed on the PC Video signal. (**Off/On**)



- PIP turns off when the LCD Display is switched to an external source.
- If you select , , in Size, Position and Transparency will not be activated.

PIP



Turns the PIP Screen Off/On.

- Off
- On

Source





- PIP is disabled if the primary screen does not receive a signal.
- A TV tuner box (sold separately) must be connected to use the TV.

Selects the input source for the PIP.

• PC : DVI / AV / HDMI1 / HDMI2 / DisplayPort

DVI : PC

• AV : PC

HDMI : PC

DisplayPort : PC

Size



Changes the Size of the PIP window.

Position



Changes the Position of the PIP window.

Transparency



Adjusts the Transparency of PIP windows.

- High
- Medium
- Low
- Opaque





Name the input device connected to the input jacks to make your input source selection easier.

VCR / DVD / Cable STB / HD STB / Satellite STB / AV Receiver / DVD Receiver / Game /Camcorder / DVD Combo / DHR / PC / DVI PC / DVI Devices



- The displayed devices differ depending on the external input mode.
- When connecting a PC to the HDMI terminal, set Edit Name to PC. In other cases, set Edit Name to AV. However, since 640x480, 720P (1280x720), and 1080p (1920x1080) are common signals for AV and PC, make sure to set the Edit Name in accordance with the input signal.
- When a PC is connected, set Edit Name to DVI PC to enjoy the video and audio from the connected PC.
- When an AV device is connected, set Edit Name to DVI Device to enjoy the video and audio from the connected AV device.

Source AutoSwitch Settings PACHMT

Turning on the display with **Source AutoSwitch On**, and the previous video source selection is not active, the display will automatically search the different video input sources for active video.



- If the display TV source is active (TV tuner connected to the display) the **Source AutoSwitch** search function becomes inactive. The display will remain in the TV source.
- Source AutoSwitch selection and PIP function: If the Source AutoSwitch selection is set to On, the PIP function will not work, the Source AutoSwitch selection must be set to Off, for the PIP feature to work.
- When the Source AutoSwitch selection is On, and or the Primary Source Recovery is On, the display power saving mode becomes inactive.
- When **Primary Source Recovery** is **On**, only the **Primary Source** and **Secondary Source** selection are available and they are interchangeable and selectable at will.

Refer to **PIP** > **Source** for compatible signals for each primary input source.

Source AutoSwitch



When the **Source AutoSwitch** is **On**, the display video source will automatically be searched for active video.

The **Primary Source** selection will be activated, if the current video source is not recognized. **Secondary source** selection will become active, if no primary video source is available. If the primary or secondary source is not recognized, the display will search again, if no active video is found the display will show the no-input-signal message.

When the **Primary Source** selection is set to **All**, the display will search all the video source inputs twice in sequence looking for an active video source, returning back to the first video source in the sequence if no video is found.

- 1. **Off**
- 2. On

Primary Source Recovery

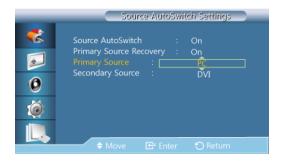


When **Primary Source Recovery** is **On**, only the **Primary Source** and **Secondary Source** video source selection will be searched for active video.

The **Primary Source** will be selected if active video is found, if no video is found, the **Secondary Source** will be selected, if no video is found in **Secondary Source** again, the no-input-signal is displayed.

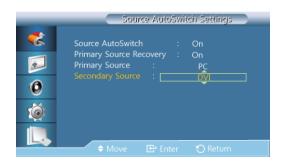
- 1. **Off**
- 2. **On**

Primary Source



Specify **Primary Source** for the automatic input source.

Secondary Source



Specify **Secondary Source** for the automatic input source.

Picture [PC / DVI / DisplayPort / MagicInfo Mode]

- If connected to a PC, set Edit Name to DVI PC, and enjoy video or audio content saved on the PC.
- If connected to an AV device, set **Edit Name** to **DVI Device**, and enjoy video or audio content saved on the AV device.

Available Modes

- PC / DVI / DisplayPort
- 🔼 AV
- Component
- 🗓 нрмі
- MagicInfo
- 🔟 TV



To watch TV on the product, connect a TV tuner box (sold separately).



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

Mode PM





Not available when **Dynamic Contrast** is set to **On**.

1. Information

Recommended for communicating exact information (e.g. public information).

2. Advertisement

Recommended for displaying advertisements (e.g. videos or indoor or outdoor ads).

3. Custom

Custom PM

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.



- By adjusting the picture using the **Custom** function, **Mode** will change to **Custom** mode.
- Not available when **Dynamic Contrast** is set to **On**.

1. Contrast



Adjusts the Contrast.

2. Brightness



Adjusts the Brightness.

3. Sharpness



Adjusts the Sharpness.

4. Gamma



Adjust the mid-range brightness (Gamma) for the picture.

Natural

Mode 1

Sets the picture brighter than Natural.

Mode 2

Sets the picture darker than **Mode 1**.

Mode 3

Increases the contrast between dark and bright colors.

Color Tone PM





Not available when **Dynamic Contrast** is set to **On**.

The Color tones can be changed.

- 1. **Off**
- 2. Cool
- 3. Normal
- 4. Warm
- 5. Custom



If you set the **Color Tone** to **Cool**, **Normal**, **Warm**, or **Custom**, the **Color Temp.** function is disabled.

If you set the Color Tone to Off, the Color Control function is disabled

Color Control PM

Adjusts individual Red, Green, Blue Color balance.

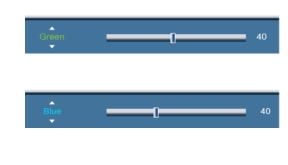


Not available when **Dynamic Contrast** is set to **On**.

1. Red



2. Green



Color Temp. PM

3.

Blue



Color Temp. is a measure of the 'warmth' of the image Colors.



This function is enabled when **Mode** is set to **Custom**, and **Dynamic Contrast** and **Color Tone** are **Off**.

Image Lock P

Image Lock is used to fine-tune and get the best image by removing noise that creates unstable images with jitters and shakiness. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.



Available in PC mode only.

Coarse



Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the Center using the horizontal control menu.

Fine



Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).

Position



Adjusts the screen location horizontally and vertically.

Auto Adjustment



The values of **Fine**, **Coarse**, **Position** are adjusted automatically. By changing the resolution in the control panel, the auto function is performed.



Available in PC mode only.

Signal Balance

This is used to make up for the weak RGB signal transmitted by a long signal cable.



- Not available when **Dynamic Contrast** is set to **On**.
- Available in **PC** mode only.

Signal Balance



Selects either On or Off with the signal balance.

Signal Control



Available when Signal Balance is set to On.

1. R-Gain



2. G-Gain



3. **B-Gain**



4. R-Offset



5. G-Offset



6. **B-Offset**



Size P



The Size can be switched.

- 1. **16:9**
- 2. **4:3**

PIP Picture

Adjusts the PIP Screen Settings.

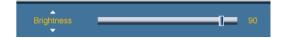


- Available Modes: PIP On
- 1. Contrast



Adjusts the Contrast of the PIP window on the screen.

2. Brightness



Adjusts the Brightness of the PIP window on the screen.

3. Sharpness



Adjusts the Sharpness of the PIP window on the screen.

4. Color



Adjusts the Color of the PIP window on the screen.



PIP input only operates in AV, HDMI, or Component mode.

5. Tint



Adds a natural tone to the PIP window.



PIP input only operates in AV, HDMI, or Component mode.

Dynamic Contrast PM



Dynamic Contrast automatically detects the distribution of the visual signal and adjusts to create an optimum contrast.

- 1. **Off**
- 2. **On**



This function is disabled when PIP or Energy Saving is On.

Lamp Control M



Adjusts the inverter lamp in order to reduce energy consumption.



Not available when **Dynamic Contrast** is set to **On**.

Brightness Sensor PM



Brightness Sensor detects the ambient light intensity so that the picture brightness can automatically be adjusted.

- 1. **Off**
- 2. **On**

Picture Reset PM



Reset the screen settings.

Picture [AV / HDMI / TV / Component Mode]

Available Modes

- PC / DVI / DisplayPort
- 🔼 AV
- Component
- 🔢 нрмі
- MagicInfo
- TV



To watch TV on the product, connect a TV tuner box (sold separately).



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

Mode AH CT



The LCD Display has four automatic picture settings ("**Dynamic**", "**Standard**", "**Movie**" and "**Custom**") that are preset at the factory.



Not available when **Dynamic Contrast** is set to **On**.

- 1. Dynamic
- 2. Standard

- 3. Movie
- 4. Custom

Custom AHCT

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.



Not available when **Dynamic Contrast** is set to **On**.

Contrast



Adjusts the Contrast.

Brightness



Adjusts the Brightness.

Sharpness



Adjusts the picture Sharpness.

Color



Adjusts the picture Color.

Tint



Adds a natural tone to the display.



The Tint slider is only displayed when input source is **HDMI**, **Component** or **AV**.

Color Tone AHCT



The Color tones can be changed. The individual Color components are also user adjustable.



Not available when **Dynamic Contrast** is set to **On**.

- 1. **Off**
- 2. Cool2
- 3. **Cool1**
- 4. Normal
- 5. Warm1
- 6. **Warm2**



- If you set the Color Tone to Cool2, Cool1, Normal, Warm1, or Warm2, the Color Temp. function is disabled.
- Changing a setting in the Color Tone menu will switch the screen mode to Custom.

Color Temp. AHCT



Color temp. is a measure of the 'warmth' of the image Colors.



This function is enabled when **Mode** is set to **Custom**, and **Dynamic Contrast** and **Color Tone** are **Off**.

SizeAHC



The Size can be switched.

PC mode(PC, HDMI[PC Timing]): 16:9 - 4:3

Video mode (HDMI [Video Timing], AV or Component): 16:9 - Zoom1 - Zoom2 - 4:3 - Screen Fit - Custom

- 1. **16:9** Sets the picture to 16:9 wide mode.
- 2. **Zoom 1** Magnifies the size of the picture on the screen.
- 3. **Zoom 2** Magnifies the size of the picture more than **Zoom 1**.

- 4. **4:3** Sets the picture to 4:3 normal mode.
- 5. **Screen Fit** Displays the input scenes as they are without any cutoff when HDMI 720p, 1080i, 1080p signals are input.
- 6. **Custom** Changes the resolution to suit the user's preferences.



- Certain external devices may feed the display an out of spec signal that may cause cutoff even when using the Screen Fit feature.
- Screen Fit is enabled for only 1080i/p in Component mode and for 1080i/p or 720p in HDMI mode.
- Zoom 1 and Zoom 2 are disabled for HD signals (1080i/p, 720p or 768p).
- The Position and Reset functions are available in Zoom 1 or Zoom 2 modes.

Digital NR (Digital Noise Reduction) [MIC]



Turns the Digital Noise Reduction feature **Off/On**. The Digital Noise Reduction feature allows you to enjoy clearer and crisper images.

- 1. Off
- 2. On



Digital NR function is not available for all resolutions.

HDMI Black Level



When a DVD or set-top box is connected to your TV via HDMI, it may cause a degradation in the screen quality, such as an increase in the black level, a low contrast, or discoloration, etc., depending on the external device connected. In this case, adjust the screen quality of your TV by configuring the **HDMI Black Level**.

1. Normal

2. **Low**



For Timing which can be used for both the PC and the DTV in **HDMI** mode, **HDMI Black Level** will be activated.

Film Mode AHC



Film Mode calibrates unnatural picture when watching a movie (24 frames) played on a TV (30 frames).

Moving subtitles may appear corrupted when this mode is enabled.

(In **HDMI** mode, this function is available when the input signal is interlaced scan; it is not available in progressive scan.)

- 1. Off
- 2. **On**

PIP Picture All II

Adjusts the PIP Screen Settings.



Available Modes: PIP On

1. Contrast



Adjusts the Contrast of the PIP window on the screen.

2. Brightness



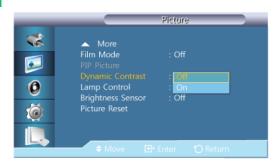
Adjusts the Brightness of the PIP window on the screen.

3. Sharpness



Adjusts the Sharpness of the PIP window on the screen.

Dynamic Contrast AHCT



Dynamic Contrast automatically detects the distribution of the visual signal and adjusts to create an optimum contrast.

- 1. **Off**
- 2. **On**



This function is disabled when **PIP** or **Energy Saving** is **On**.

Lamp Control AHCT



Adjusts the inverter lamp in order to reduce energy consumption.



Not available when **Dynamic Contrast** is set to **On**.

Brightness Sensor AHCTT



Brightness Sensor detects the ambient light intensity so that the picture brightness can automatically be adjusted.

- 1. **Off**
- 2. **On**

Picture ResetAHCT



Reset the screen settings.

Sound

Available Modes

- PC / DVI / DisplayPort
- 🔼 AV
- Component
- 🔢 нрмі
- MagicInfo
- II TV



To watch TV on the product, connect a TV tuner box (sold separately).



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.





The LCD Display has a built-in high fidelity stereo amplifier.

1. Standard

Selects Standard for the standard factory settings.

2. Music

Selects Music when watching music videos or concerts.

3. Movie

Selects **Movie** when viewing movies.

4. Speech

Selects **Speech** when watching a show that is mostly dialog (i.e., news).

5. Custom

Selects **Custom** if you want to adjust the settings according to your personal preferences.

Custom PACHMT

The sound settings can be adjusted to suit your personal preferences.



- You can hear the sound even when sound value is set to 0.
- If you adjust sound using Custom function, Mode will turn to Custom mode.

Bass



Emphasizes low frequency audio.

Treble



Emphasizes high frequency audio.

Balance



Allows you to Adjusts the sound balance between the left and right speakers.

Auto Volume PACHMT



Reduces the difference in volume control between broadcasters.

- 1. **Off**
- 2. **On**

SRS TS XTPACHMT



SRS TS XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround XT delivers a compelling, virtual surround sound

experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

- 1. **Off**
- 2. **On**

Sound Select PAHT



Enable the sound of either the primary or secondary display in PIP mode.



Available when PIP is set to On.

- 1. Main
- 2. Sub

Speaker Select PACHMII



When you use the product with it connecting to a Home Theater, turn the internal speakers off so you can listen to sound from the Home Theater's (external) speakers.

1. Internal

Sound is outputted both from the **Internal** speaker and the **External** speakers, but the volume control is only available from the **Internal** speaker.

2. External

When sound is only outputted from the **External** speakers, the volume control is also only available from the **External** speakers.

Sound Reset PACHMT



Reset the sound settings.

Setup

Available Modes

- PC / DVI / DisplayPort
- 🔼 AV
- Component
- 🗓 HDMI
- MagicInfo
- **II**TV



To watch TV on the product, connect a TV tuner box (sold separately).



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

Language PACHMT



You can choose one of 13 languages.

English,Deutsch,Español,Français,Italiano,Svenska,Русский Português,Türkçe, 简体中文,繁體中文, 日本語, 한국어



The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.

Time PACHMT

Selects from one of 4 time settings, **Clock Set**, **Sleep Timer**, **Timer**, and **Holiday Management**.

Clock Set



Current Time Setting.

Sleep Timer



Turns the LCD Display off automatically at certain times.

- 1. **Off**
- 2. 30
- 3. **60**
- 4. **90**
- 5. **120**
- 6. **150**
- 7. 180

Timer1 / Timer2 / Timer3



You can set the LCD display to automatically turn on or off at a specified time.



- Only enabled when the clock is set using the Clock Set menu.
- · The Manual option allows you to select a day of the week.

Holiday: When choose Apply, timer is not available on holiday; when choose Don't apply, timer is available on holiday.

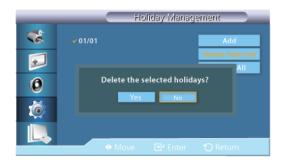
Holiday Management

Add



You can register holidays.

Delete Selected



You can delete selected holidays.



- · Only enabled when registered holidays are selected.
- More than one holiday can be selected and deleted.
- · Delete All



You can delete all the registered holidays.

Menu Transparency PACHMT



Change the transparency of the background of the OSD.

- 1. High
- 2. Medium
- 3. **Low**
- 4. Opaque

Safety Lock PACHMT

Change PIN



The password can be changed.

The preset password for the LCD Display is "0000".



If you forgot your password, press the remote buttons INFO EXIT MUTE to reset the password to "0000."

Lock On



This is the function that locks the OSD in order to keep the current settings or to prevent others from adjusting the settings.

Energy Saving PACHMT



This feature adjusts the power consumption of the unit in order to save energy.

- 1. **Off**
- 2. **On**

Video WallPACHMT

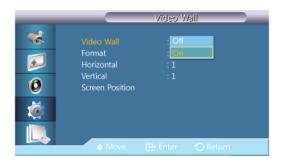
A **Video Wall** is a set of video screens connected together, so that each screen shows a part of the whole picture or where the same picture is repeated on each screen.

When the Video Wall is on, you can adjust the Video Wall screen setting.



- When Video Wall is running, the Size functions are not available.
- Disabled when PIP is set to On.

Video Wall



Turns Off/On the Video Wall function of the selected display Off/On.

- Off
- On

Format



The **Format** can be selected to see a divided screen.

Full

Provides a full screen without any margins.

Natural

Displays a natural image with the original aspect ratio intact.

Horizontal



Sets how many parts the screen should be divided horizontally.

Fifteen adjustment levels: 1~15.



If Vertical is set to 15, the maximum value for Horizontal is 6.

Vertical



Sets how many parts the screen should be divided vertically.

Fifteen adjustment levels: 1~15.



If Horizontal is set to 15, the maximum value for Vertical is 6.

Screen Position



The screen can be divided into several images. A number of screens can be selected with a different layout when dividing.

- · Select a mode in Screen Position.
- · Select a display in Display Selection.
- The selection will be set up by pressing a number in the selected mode.
- The screen can be split into a maximum of 100 sub-screens.



When more than four displays are connected, we recommend a resolution of XGA (1024*768) or greater to prevent any picture degradation.

Safety Screen PACHMT

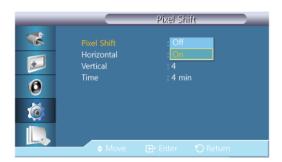
The **Safety Screen** function is used to prevent afterimages that may appear when a still picture is displayed on the screen over a long time.



This function is not available when the power is turned off.

Pixel Shift

Pixel Shift



To prevent after-images on the screen, you can use this function to have pixels move on the LCD in the horizontal or vertical direction.

- Off
- On

Horizontal



Sets how many pixels the screen moves horizontally.

Five adjustment levels: 0, 1, 2, 3, and 4.

Vertical



Sets how many pixels the screen moves vertically.

Five adjustment levels: 0, 1, 2, 3, and 4.

Time



Set the time interval for performing the horizontal or vertical movement, respectively.

Timer

Timer

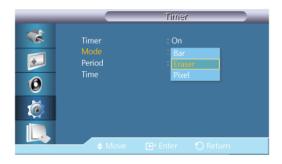


You can set the timer for Screen Burn Protection.

If you start the operation to erase any residual image, the operation will be performed for the set period of time and then automatically finish.

- Off
- On

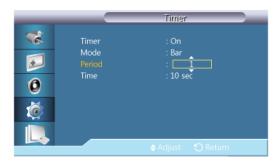
Mode



You can change the Safety Screen Type.

- Bar
- Eraser
- Pixel

Period



Use this function to set the execution period for each mode set in the timer.

Time



Within the set period of time specify a time for execution.

Bar



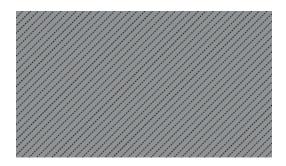
This function prevents after-images on the screen by moving long black and white vertical lines.

Eraser



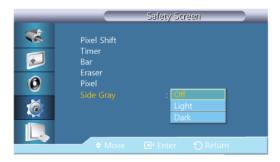
This function prevents after-images on the screen by moving a rectangular pattern.

Pixel



This function prevents after-images by moving many pixels on the screen.

Side Gray



Select the brightness of the grey for the screen background.

- OFF
- Light
- Dark

Resolution Select



When the picture is not displayed properly on the screen when setting the graphics card resolution of the computer to $1024 \times 768 \otimes 60Hz$, $1280 \times 768 \otimes 60Hz$, $1360 \times 768 \otimes 60Hz$

60Hz or **1366 x 768 @ 60Hz**, by using this function(Resolution Select), you can have the picture displayed on the screen in the specified resolution.



Available in PC mode only.

- 1. **Off**
- 2. 1024 X 768
- 3. 1280 X 768
- 4. 1360 x 768
- 5. 1366 X 768



Selecting the menu is only allowed when the graphics resolution is set to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768 @ 60Hz or 1366 x 768 @ 60Hz.

Power On Adjustment PACHMI



Adjusts the Power On time for the screen.



Caution: Set the Power On time to be longer to avoid overvoltage.

OSD Rotation PACHMT



OSD Rotate

- 1. Landscape
- 2. Portrait

Advanced Settings PACHMT

Configures the settings more elaborately.

Fan & Temperature

Protects the product by detecting the fan speed and internal temperature.

Fan Control



Selects auto or manual for the fan speed settings.

- Auto
- Manual

Fan Speed Setting



Sets the fan speed within a range of **0** and **100**.



Enabled when Fan Control is set to Manual.

Temperature Control



Detects the product's internal temperature and specifies the desired temperature.

The product is set to 77°C by default.



- The picture will be dimmed if the temperature exceeds the specified temperature, and the product will automatically power off to prevent overheating if the temperature keeps rising.
- It is best to use the product at temperatures 75 80°C (based on ambient temperature of 40°C).

Refer to "Specifications" herein for details about operating conditions.

• It is best to set Fan Control to Auto when you change the Temperature Control setting.

Current Temperature



Shows the current temperature of the product.

Auto Power



Enables or disables **Auto Power** for the product.

- Off
- On



When **Auto Power** is **On**, the product will power on automatically as soon as it is connected to power.

Button Lock



Locks or unlocks the monitor control buttons on the product.

- Off
- On

User Auto Color



1. Auto Color

Automatically adjusts the Colors.

2. Reset

Resets the Color settings.



Enabled only in **PC** mode.

Standby Control



Sets the standby mode, which will be activated when no input signal is detected.

Off

A message will read **No Signal** if no input signal is detected.

• On

Power-saving mode will be activated if no input signal is detected.

Auto

When no input signal is detected,

- Power-saving mode will be activated if an external device is connected.
- A message will read **No Signal** if no external device is connected.



- Enabled only in PC, DVI, HDMI, or DisplayPort mode.
- · Auto will be disabled in HDMI mode.

Lamp Schedule



Adjusts the luminance to a user-specified value at a specified time.

OSD Display

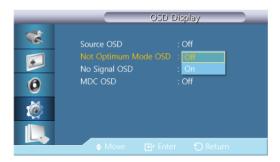
Displays or hides a menu item on the screen.

Source OSD



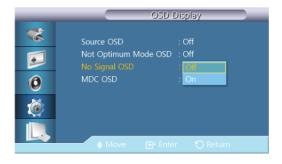
- Off
- On

Not Optimum Mode OSD



- Off
- On

No Signal OSD



- Off
- · On

MDC OSD

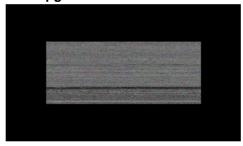


- Off
- On

Software Upgrade

Performs a software upgrade.

- Connect the product to a computer via a digital signal such as **DVI** or **HDMI**. Click the BMP image file converted from an SW code. The image below will appear on the screen of the product.
- 2. While a BMP image onto which the software code has been converted is displayed on the screen, select **Software Upgrade**.





When there are two or more BMP images, they are displayed on the screen using a slideshow.

- It is recommended that the playback interval between two BMP images in the slideshow should be one second. The image extraction probability will decrease with other playback intervals.
- A BMP image might not be extracted if it is covered by another image (for example, the mouse pointer).
- 3. If a more recent version than the current software version is detected, you will be asked whether to upgrade the current software. If you select **Yes**>, the upgrade is performed.
- 4. When the software upgrade is completed, the product is turned off and on automatically.





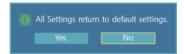
- This only operates with a digital signal, such as in DVI, HDMI1, or HDMI2 mode. (The
 input resolution must be identical to the panel resolution.)
- In **HDMI1** and **HDMI2** modes, the timing values used for both the PC and TV are only supported if the **Edit Name** is set to **PC** or **DVI PC**.
- This is only supported if the Size is set to 16:9.

Setup ResetPACHMT



Reset all the values for a setting.

Reset All PACHMT



Reset all the settings for the display.

Multi Control

Available Modes

- PC / DVI / DisplayPort
- AV
- Component
- 🗓 HDMI
- MagicInfo
- 🔟 TV



To watch TV on the product, connect a TV tuner box (sold separately).

Using MagicInfo

To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

Multi Control PACHMT

Assigns an individual ID to the SET.



ID Setup

Assigns distinctive IDs to the SET.

• ID Input

Use to select the transmitter functions of the individual SET. Only a SET where the ID corresponds to the transmitter setting becomes activated.

MDC Connection

Selects a port to receive the MDC inputs from.

- RS232C MDC Communicates with the MDC via a RS232C MDC cable.
- RJ45 MDC Communicates with the MDC via an RJ45 MDC cable.

· Network Setting

- · IP Setting : Manual, Auto
- IP Address: Manually enter the IP Address if IP Setting is set to Manual.
- Subnet Mask: Manually enter the Subnet Mask if IP Setting is set to Manual.
- Gateway: Manually enter the Gateway if IP Setting is set to Manual.

MagicInfo

Available Modes

- PC / DVI / DisplayPort
- 🔼 AV
- Component
- 🔢 нрмі
- MagicInfo

II TV



To watch TV on the product, connect a TV tuner box (sold separately).



To use **MagicInfo** with an TSn-3 model, install inside the product a network box specified by Samsung and connect the **MagicInfo** output on the network box to [HDMI IN 2 (MAGICIN-FO)] on the product.

✓ Note

- For **MagicInfo** in Device mode, moving external devices while booting may cause errors. Set up external devices only if the LCD Display turns on.
- Do not unplug the LAN cable used for the network (ex: video display). Otherwise, the Program (MagicInfo) may stop. If you do unplug the cable, restart the system.
- Do not unplug the LAN cable used by an USB device (ex: video display). Otherwise, the Program (MagicInfo) may stop.
- To access other sources, press the SOURCE button in MagicInfo.
- The preset password for the LCD Display is "000000".
- The server Program's Power-On option works only if the LCD Display's power is completely shut off.

Please make sure not to use the Power-On option when the LCD Display is in the process of shutting down since this may cause system errors on the LCD Display.

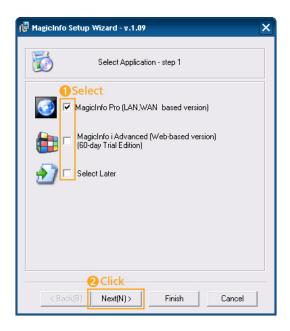
- When using **MagicInfo** with the MagicInfo Server Program: perform Network mode.
- When using **MagicInfo** with the device directly connected to LCD Display: execute Device mode.
- Press ESC to directly go to the MagicInfo Window screen.
- To setup **MagicInfo** on a Windows screen, a keyboard and mouse are required.
- To setup **MagicInfo** on a Windows screen, refer to the MagicInfo Server Help.

It is highly recommended not to turn off the AC power during an operation.

- For pivoted LCD Displays, ticker transparency is not supported.
- For pivoted LCD Displays, a screen resolution of up to 720*480(SD) is supported for movies.
- For drive D:, **EWF** is not applied.
- To save Setup contents that have been changed when EWF is in the Enable state, you
 must Commit them.
- By selecting **Disable**, **Enable** or **Commit**, the system is restarted.

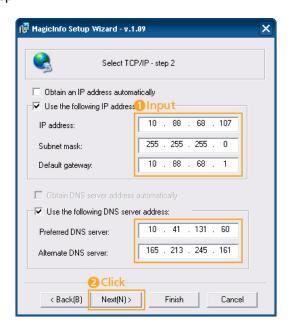
MagicInfo

1. Select Application - step 1



You can select an Application to be executed in your computer when Windows starts.

2. Select TCP/IP - step 2



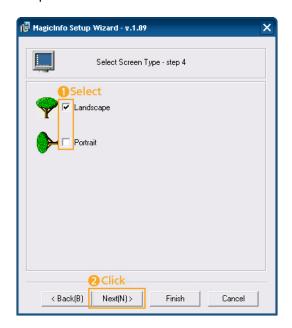
In step 2 of MagicInfo Setup Wizard, you don't have to go to Network Setting on the desktop to make your settings for TCP/IP. You just do that at step 2 of MagicInfo installation.

3. Select Language - step 3



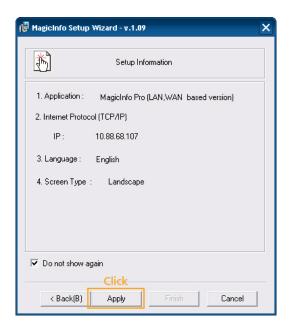
When using multiple languages, you can choose and set a specific language among them.

4. Select Screen Type - step 4



You can select which rotation type will be applied to your device.

5. Setup Information



Shows the settings that have been selected by the user.



If the **MagicInfo** icon is not displayed on the notification area, double click the **MagicInfo** icon on the window desktop. The icon will appear.

Troubleshooting

Self-Test Feature Check



Check the following items yourself before calling for assistance. Contact a Service Center for problems that you cannot solve by yourself.

Self-Test Feature Check

- 1. Turn off both your computer and the LCD Display.
- 2. Unplug the video cable from the back of the computer.
- Turn on the LCD Display.

The figure shown below ("**No Signal**") appears on a black background when the LCD Display is working normally even though no video signal is detected: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.



Turn off your LCD Display and reconnect the video cable; then turn on both your computer and the LCD Display

If your LCD Display screen remains blank after using the previous procedure, check your video controller and computer system; your LCD Display is functioning properly.

Warning Messages

You can even view the screen at a resolution of 1920×1080 . However, you will receive the following message for a minute; You can choose to change the screen resolution or stay in the current mode during that time. If the resolution is more than 85Hz, you will see the black screen because the LCD Display does not support over 85Hz.

Not Optimum Mode Recommended Mode 1366 X 768 60Hz



Refer to Specifications > Preset Timing Modes for the resolutions or frequencies supported by the LCD Display.

Maintenance and Cleaning

1) Maintaining the LCD Display Case.

Clean with a soft cloth after disconnecting the power cord.



Do not use benzene, thinner or other flammable substances.

2) Maintaining the Flat Panel Display Screen.

Clean with a soft cloth (cotton flannel).



- Never use acetone, benzene or thinner.
 - (They may cause flaws or deformation of the screen surface.)
- The user is responsible for any damage caused by using these substances.

Symptoms and recommended Actions



A LCD Display recreates visual signals received from the computer. Therefore, if there is a problem with the computer or the video card, this can cause the LCD Display to become blank, have poor Coloring, become noisy, etc. In this case, first check the source of the problem, and then contact a Service Center or your dealer.

- 1. Check if the power cord and the video cables are properly connected to the computer.
- 2. Check if the computer beeps more than 3 times when booting.

(If it does, request service.)

- 3. If you installed a new video card or if you assembled the PC, check if you installed the Adaptor(video).
- 4. Check if the scanning ratio of the video screen is set to between 56 Hz ~ 85 Hz.

(Do not exceed 60Hz when using the maximum resolution.)

5. If you have problems in installing the Adaptor (video) driver, boot the computer in Safe Mode, remove the Display Adaptor in the "Control Panel -> System -> Device Administrator" and then reboot the computer to reinstall the Adaptor (video) driver.

Check List



The following table lists possible problems and their solutions. Before calling for assistance, check the information in this section to see if you can remedy any problems for yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Problems related to the Installation



Problems related to the LCD Display installation and their solutions are listed.

Q: The LCD Display screen flickers.

A: Check if the signal cable between the computer and the LCD Display is securely connected

(Refer to Connecting a Computer)

Problems related to the Screen



Problems related to the LCD Display screen and their solutions are listed.

- Q: The screen is blank and the power indicator is off.
- A: Ensure that the power cord is firmly connected and the LCD Display is on.

(Refer to the Connecting a Computer)

- Q: "No signal" message.
- A: Ensure that the signal cable is firmly connected to the PC or video sources.

(Refer to the Connecting a Computer)

- A: Ensure that the PC or video sources are turned on.
- Q: "Not Optimum Mode" message.
- A: Check the maximum resolution and the frequency of the video Adaptor.
- A: Compare these values with the data in the Preset Timing Modes Chart.
- Q: The picture rolls vertically.
- A: Check if the signal cable is securely connected. Re-connect it, if necessary.

(Refer to Connecting a Computer)

- Q: The image is not clear; picture is blurred.
- A: Run Frequency Coarse and Fine tuning.
- A: Turn on again after removing all accessories (video extension cable, etc.)
- A: Set the resolution and frequency to the recommended ranges.
- Q: The picture image is unstable and shakes.
- A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.
- Q: Ghost images are shown in the picture.
- A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.
- Q: The image is too light or too dark.
- A: Adjust the brightness and contrast.

(Refer to the **Brightness**, **Contrast**)

- Q: The screen Color is inconsistent.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Color image is distorted by dark shadows.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Color white is poor.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Power Indicator blinks.
- A: The LCD Display is currently saving the changes made in the settings to the OSD memory.
- Q: The screen is blank and the power indicator light blinks every 0.5 or 1 seconds.
- A: The LCD Display is using its power management system. Press any key on the key-board.

Problems related to Audio



Problems related to audio signals and their solutions are listed below.

- Q: No sound.
- A: Ensure that the audio cable is firmly connected to both the audio-in port on your LCD Display and the audio-out port on your sound card.

(Refer to the Connecting a Computer)

- A: Check the volume level.
- Q: The sound level is too low.
- A: Check the volume level.
- A: If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software Program.
- Q: The sound is too high or too low.
- A: Adjusts the **Treble** and **Bass** to the appropriate levels.

Problems related to the Remote Control



Problems related to the remote control and their solutions are listed.

- Q: The remote control buttons do not respond.
- A: Check the polarities (+/-) of the batteries.
- A: Check if the batteries are empty.
- A: Check if the power is on.
- A: Check if the power cord is securely connected.

A: Check if a special fluorescent or neon lamp is on in the vicinity.

Q & A

- Q: How can I change the frequency?
- A: The frequency can be changed by reconfiguring the video card.



That video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)

- Q: How can I adjust the resolution?
- A: Windows XP:

Set the resolution in the Control Panel Appearance and Themes Display Settings.

A: Windows ME/2000:

Set the resolution in the Control Panel Display Settings.

- * Contact the video card manufacturer for details.
- Q: How can I set the Power Saving function?
- A: Windows XP:

Control Panel Appearance and Themes Display Enable the powersaving feature in Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

A: Windows ME/2000:

Control Panel Display Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

- Q: How can I clean the outer case/LCD Panel?
- A: Disconnect the power cord and then clean the LCD Display with a soft cloth, using either a cleaning solution or plain water.

Do not leave any detergent or scratches on the case. Do not let any water enter the LCD Display.

- Q: How can I play the video?
- A: The video supports the MPEG1 and WMV codecs only. Install the corresponding codec to play the video. Note that some of the codecs can be incompatible.



Before calling for assistance, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Specifications

General

		ra

Model Name 320	TSn-3
----------------	-------

LCD Panel

Size	31.5 inch / 80cm
Display Area	697.68 mm(H) x 392.25 mm(V)

Synchronization

Horizontal	30~81 kHz
Vertical	56~85 Hz

Display Color

16.7M (true)

Resolution

Optimum resolution	1366 x 768 @ 60Hz
Maximum resolution	1920 x 1080 @ 60Hz

Maximum Pixel Clock

148.5MHz (Analog, Digital)

Power Supply

This product supports 100 - 240 V.

Since the standard voltage may differ from country to country, please check the label on the back of the product.

Signal connectors

D-sub(Component), DVI-D In, VCR, HDMI 1/2, RS232C In/Out, DP, DC Out, Stereo Audio In/Out, Audio In(L/R), RJ45, USBx3, LAN, D-sub out, HDMI out

Dimensions (W x H x D)

With Stand	787.4 mm x 553.1 mm x 311.0 mm / 31.0 x 21.8 x 12.2 inches (With Stand)
Without Stand	787.4 mm x 482.2 mm x 116.3 mm / 31.0 x 19.0 x 4.6 inches (Without Stand)

Weight

20.8 Kg / 45.9lbs

VESA Mounting Interface

200.0 mm X 200.0 mm

Environmental considerations

Operating	Operating Temperature:	50°F ~ 104°F (10°C	C ~ 40°C)
			,

Environmental considerations

	Humidity: 10% ~ 80%, non-condensing
Storage	Operating Temperature : -4°F ~ 113°F (-20°C ~ 45°C)
	Humidity: 5% ~ 95%, non-condensing

Plug and Play Capability

This LCD Display can be installed on any Plug & Play compatible system. The interaction of the LCD Display and the computer systems will provide the best operating conditions and LCD Display settings. In most cases, the LCD Display installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT-LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE Color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problems.

For example, the number of TFT-LCD sub pixels contained in this product are 3,147,264.



Design and specifications are subject to change without prior notice.



Attention dealers and users. This device is registered for EMC requirements for industrial use (Class A) and can be used in areas other than general households.

(USA Only)

Dispose unwanted electronics through an approved recycler. To find the nearest recycling location, go to our website, www.samsung.com/recyclingdirect or call, (877) 278 - 0799

PowerSaver

This LCD Display has a built-in power management system called PowerSaver. This system saves energy by switching your LCD Display to low-power mode when it has not been used for a certain amount of time. The LCD Display automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your LCD Display OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

PowerSaver

State	Normal Op- eration	Power sav- ing mode	Power off	Power off (Power Swich)
Power Indicator	On	Blinking	Amber	Off
Power Consumption	177 Watts	5 Watts	5 Watts	0 Watts
(Typical)	(603.57 BTU/h)	(17.05 BTU/ h)	(17.05 BTU/ h)	(0 BTU/h)



- The actual power consumption may be different from the indicated power consumption above if the system conditions or settings are changed.
- To stop any power consumption, turn off the switch or disconnect the power cable on the back. Be sure to disconnect the power if you intend to stay away from home for many hours.

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)		Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 848 x 480	31.020	60.000	33.750	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 768	47.776	59.870	79.500	-/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1360 x 768	47.712	60.015	85.500	+/+
VESA, 1366 x 768	47.712	59.790	85.500	+/+
VESA,1600 x 1200	75.000	60.000	162.000	+/+
VESA,1920 x 1080	67.500	60.000	148.500	+/+



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle and the inverse number of the Horizontal Cycle is called the Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called the Vertical Frequency or Refresh Rate. Unit: Hz

Information

For a Better Display

Adjust the computer resolution and screen injection rate (refresh rate) on the computer as described below to enjoy the best picture quality. You can have an uneven picture quality on screen if the best picture quality is not provided for TFT-LCD.

Resolution: 1366 x 768

· Vertical frequency (refresh rate): 60 Hz

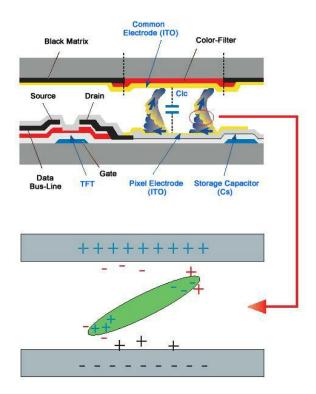
- TFT-LCD panels manufactured by using advanced semiconductor technology with a precision of 1ppm (one millionth) and above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE Color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without any problems.
- For example, the number of TFT-LCD sub pixels contained in this product are 3,147,264.
- When cleaning the monitor and the panel outside, please apply a small amount of water to a soft cloth. Rub softly when cleaning the LCD area. If excessive force is applied, you may stain it.
- If you are not satisfied with the picture quality, you can get better quality of picture by performing the "Auto Adjustment" function in display screen that is appeared as window termination button is pressed. If there's still noise after the automatic adjustment, use the Fine/Coarse adjustment function.
- When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear. Change the mode to energy save or set a screensaver to move the picture when you need to be away from the monitor for an extended period of time.

PRODUCT INFORMATION (Image Retention Free)

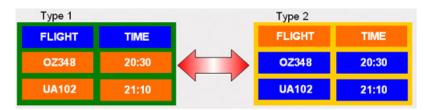
What is Image Retention?

Image retention may not occur when a LCD panel is operated under normal conditions.

Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (over 12 hours), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed. To prevent this, the accumulated voltage difference must be decreased.



- Power Off, Screen Saver, or Power Save Mode
- Turn the power off for 2 hours after 12 hours in use
- Set the Monitor to power off with the PC Display Properties Power Scheme.
- Use a Screen saver if possible Screen saver in one Color or a moving image is recommended.
- The Image Retention Free function applied to the product is recommended.
- Ochange the Color Information periodically





Use Two different Colors

Rotate the Color Information with 2 different Colors every 30 minutes.

 Avoid using a combination of characters and background Color with large difference in luminance.

Avoid using Grey Colors, which can cause Image retention easily.

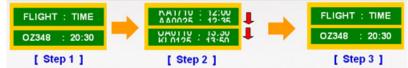
Avoid: Colors with big difference in luminance (Black & White, Grey)

FLIGHT : TIME OZ348 : 20:30 FLIGHT : TIME OZ348 : 20:30

- Change the characters Color periodically
- · Use Bright Colors with little difference in luminance.
 - Cycle: Change the characters Color and background Color every 30 minutes



• Every 30 minutes, change the characters with movement.



- Have the images and logo cycle periodically.
 - Cycle: Display moving image together with Logo for 60 seconds after 4 hours in use.
- The best way to protect your monitor from Image retention is to turn the Power
 off, or set your PC or System to operate a Screen Saver Program when you are
 not using it. If these guidelines are not followed, it may affect your warranty.
- Apply the Screen Pixel function on Product
- · Apply the Screen Pixel function
 - Symptom: Dot with Black Color move up and down.

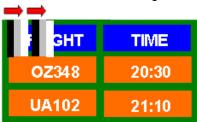


- Apply the Screen Bar function
 - Symptom: Horizontal / Vertical Bar with Black Color move up and down.



Apply the Screen Erasing function on Product

- Apply the Screen Erasing function
 - Symptom: 2 Vertical blocks move while erasing the display



Appendix

Contact SAMSUNG WORLDWIDE



If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care Center.

North America				
CANADA	1-800-SAMSUNG (726-7864)	http://www.samsung.com		
MEXICO	01-800-SAMSUNG (726-7864)	http://www.samsung.com		
U.S.A	1-800-SAMSUNG (726-7864)	http://www.samsung.com		
	Latin America			
ARGENTINA	0800-333-3733	http://www.samsung.com		
BRAZIL	0800-124-421	http://www.samsung.com		
	4004-0000			
CHILE	800-SAMSUNG (726-7864)	http://www.samsung.com		
COLOMBIA	01-8000112112	http://www.samsung.com		
COSTA RICA	0-800-507-7267	http://www.samsung.com		
DOMINICA	1-800-751-2676	http://www.samsung.com		
ECUADOR	1-800-10-7267	http://www.samsung.com		
EL SALVADOR	800-6225	http://www.samsung.com		
GUATEMALA	1-800-299-0013	http://www.samsung.com		
HONDURAS	800-27919267	http://www.samsung.com		
JAMAICA	1-800-234-7267	http://www.samsung.com		
NICARAGUA	00-1800-5077267	http://www.samsung.com		
PANAMA	800-7267	http://www.samsung.com		
PERU	0-800-777-08	http://www.samsung.com		
PUERTO RICO	1-800-682-3180	http://www.samsung.com		
TRINIDAD & TO- BAGO	1-800-SAMSUNG (726-7864)	http://www.samsung.com		
VENEZUELA	0-800-100-5303	http://www.samsung.com		
	Europe			
ALBANIA	42 27 5755	-		
AUSTRIA	0810 - SAMSUNG (7267864, €0.07/min)	http://www.samsung.com		
BELGIUM	02-201-24-18	http://www.samsung.com/be (Dutch)		
		http://www.samsung.com/ be_fr (French)		
BOSNIA	05 133 1999	-		
BULGARIA	07001 33 11	http://www.samsung.com		

Europe

Europe			
CROATIA	062 SAMSUNG (062 726 7864)	http://www.samsung.com	
CZECH	800 - SAMSUNG (800-726786)	http://www.samsung.com	
	Samsung Zrt., česká organizační složka, Oasis Florenc, Sokolovská394/17, 180 00, P	raha 8	
DENMARK	70 70 19 70	http://www.samsung.com	
FINLAND	030 - 6227 515	http://www.samsung.com	
FRANCE	01 48 63 00 00	http://www.samsung.com	
GERMANY	01805 - SAMSUNG (726-7864, €0,14/Min)	http://www.samsung.com	
GREECE	2106293100	http://www.samsung.com	
HUNGARY	06-80-SAMSUNG (726-7864)	http://www.samsung.com	
ITALIA	800-SAMSUNG (726-7864)	http://www.samsung.com	
KOSOVO	+381 0113216899	-	
LUXEMBURG	261 03 710	http://www.samsung.com	
MACEDONIA	023 207 777	-	
MONTENEGRO	020 405 888	-	
NETHERLANDS	0900-SAMSUNG (0900-7267864) (€ 0,10/Min)	http://www.samsung.com	
NORWAY	815-56 480	http://www.samsung.com	
POLAND	0 801 1SAMSUNG (172678)	http://www.samsung.com	
	022-607-93-33		
PORTUGAL	80820 - SAMSUNG (7267864)	http://www.samsung.com	
RUMANIA	08010 SAMSUNG (08010 7267864) - doar din reteaua Romtelecom, tarif local: 021.206.01.10 - din orice retea, tarif normal	http://www.samsung.com	
SERBIA	0700 SAMSUNG (0700 726 7864)	http://www.samsung.com	
SLOVAKIA	0800 - SAMSUNG (0800-726 786)	http://www.samsung.com/sk	
SPAIN	902 - 1 - SAMSUNG (902 172 678)	http://www.samsung.com	
SWEDEN	0771 726 7864 (SAMSUNG)	http://www.samsung.com	
SWITZERLAND	0848 - SAMSUNG (7267864, CHF 0.08/min)	,	
		http://www.samsung.com/ ch_fr/(French)	
U.K	0330 SAMSUNG (7267864)	http://www.samsung.com	
EIRE	0818 717100	http://www.samsung.com	
LITHUANIA	8-800-77777	http://www.samsung.com	
LATVIA	8000-7267	http://www.samsung.com	
ESTONIA	800-7267	http://www.samsung.com	
		,	

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444 77 11

http://www.samsung.com

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RUSSIA	8-800-555-55-55	http://www.samsung.com
GEORGIA	8-800-555-555	-
ARMENIA	0-800-05-555	-
AZERBAIJAN	088-55-55-555	-
KAZAKHSTAN	8-10-800-500-55-500 (GSM: 7799)	http://www.samsung.com
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.com
KYRGYZSTAN	00-800-500-55-500	http://www.samsung.com
TADJIKISTAN	8-10-800-500-55-500	http://www.samsung.com
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		http://www.samsung.com/ ua_ru
BELARUS	810-800-500-55-500	-
MOLDOVA	00-800-500-55-500	-
	Asia Pacific	
AUSTRALIA	1300 362 603	http://www.samsung.com
NEW ZEALAND	0800 SAMSUNG (0800 726 786)	http://www.samsung.com
CHINA	400-810-5858	http://www.samsung.com
HONG KONG	(852) 3698 - 4698	http://www.samsung.com/hk
		http://www.samsung.com/ hk_en/
INDIA	3030 8282	http://www.samsung.com
	1800 3000 8282	
INDONESIA	0800-112-8888	http://www.samsung.com
	021-5699-7777	
JAPAN	0120-327-527	http://www.samsung.com
MALAYSIA	1800-88-9999	http://www.samsung.com
PHILIPPINES	1-800-10-SAMSUNG	http://www.samsung.com
	(726-7864)	.
	1-800-3-SAMSUNG (726-7864)	
	1-800-8-SAMSUNG (726-7864)	
	02-5805777	
SINGAPORE	1800-SAMSUNG (726-7864)	http://www.samsung.com
THAILAND	1800-29-3232	http://www.samsung.com
	02 600 2222	•
T A 1\A/A N1	02-689-3232	http://www.comoung.com
TAIWAN	0800-329-999	http://www.samsung.com
VIETNAM	1 800 588 889	http://www.samsung.com

Middle East

IRAN	021-8255	http://www.samsung.com
		http://www.samservice.com
OMAN	800-SAMSUNG (726-7864)	http://www.samsung.com
KUWAIT	183-2255	http://www.samsung.com
BAHRAIN	8000-4726	http://www.samsung.com
EGYPT	08000-726786	http://www.samsung.com
JORDAN	800-22273	http://www.samsung.com
MOROCCO	080 100 2255	http://www.samsung.com
SAUDI ARABIA	9200-21230	http://www.samsung.com
U.A.E	800-SAMSUNG (726-7864)	http://www.samsung.com

Africa

NIGERIA	0800-SAMSUNG (726-7864)	http://www.samsung.com
SOUTH AFRICA	0860-SAMSUNG (726-7864)	http://www.samsung.com

Terms

Dot Pitch The image on a monitor is composed of red, green and blue

dots. The closer the dots, the higher the resolution. The distance between two dots of the same Color is called the 'Dot

Pitch'. Unit: mm

Vertical Frequency The screen must be redrawn several times per second in

order to create and display an image for the user. The frequency of this repetition per second is called the Vertical

Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per sec-

ond, this is regarded as 60 Hz.

Horizontal Frequency The time to scan one line connecting the right edge to the

left edge of the screen horizontally is called the Horizontal Cycle. The inverse number of the Horizontal Cycle is called

Horizontal Frequency. Unit: kHz

Interlace and Non-Interlace

Methods

Showing the horizontal lines of the screen from the top to the bottom sequentially is called the Non-Interlace method

while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Inter-

lace method is the same as that used in TVs.

Plug & Play

This is a function that provides the best quality screen for

the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play func-

tion.

Resolution The number of horizontal and vertical dots used to compose

the screen image is called the 'resolution'. This number shows the accuracy of the display. A high resolution is good

for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1366 x 768, this means the screen is composed of 1366 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution).

Correct Disposal

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) - Europe only



(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product - Europe only



(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.



The rechargeable battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider.

Authority

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